



AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 7. No. 15 }
WEEKLY.

BALTIMORE, MAY 23, 1885.

{ \$3.00 PER ANNUM.
{ SINGLE COPIES, 10 CENTS.

—MANUFACTURERS OF— **JAS. SMITH & CO.** —DEALERS IN—
CARD CLOTHING Works, 413 to 421 Race St., Cor. of Crown. **Manufacturers' & Mill Supplies**
Of Every Description. **COTTON and WOOLEN MACHINERY.** Office & Store, 137 Market St., Philadelphia. Of Every Description.

INDIANAPOLIS TERRA COTTA CO.

Manufacturers of All Kinds of

INDIANAPOLIS, IND. Office, Fletcher & Sharpe's Block, Ind'olis.
Works, Brightwood, INDIANA.

TERRA COTTA.

WILLIAM F. STILZ,
President.

G. L. DICKENSON,
Secretary and Treasurer.

JOS. JOINER,
Superintendent.

Send for Estimates, Catalogues and Samples

ELEVATORS

Send for Illustrated Circulars.

MORSE ELEVATOR WORKS.
MORSE, WILLIAMS & CO. Successors to
CLEM & MORSE.

Manufacturers and Builders of HYDRAULIC STEAM,
BELT and Hand-Power, PASSENGER and FREIGHT

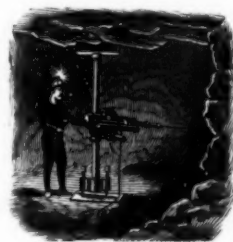
ELEVATORS

With most approved Safety Devices,
Dumb-Waiters, Automatic Hatch-Doors, &c.

Office: 411 CHERRY STREET.

Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS. PHILADELPHIA, PA.

Branch Office, 108 Liberty Street, NEW YORK.



"ECLIPSE"

ROCK DRILLS, AIR COMPRESSORS,

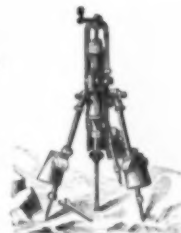
Machinery for Tunneling, Grading, Mining, Quarrying, etc.

TEN COMPLETE TUNNELING PLANTS FURNISHED FOR SOUTH PENNA. RAILROAD, PA.

FOR CATALOGUES, ESTIMATES, &c., ADDRESS,

INGERSOLL ROCK DRILL CO., 10 Park Place, N. Y.

MORTON, REED & CO., Agents, Baltimore.



MOSHELEY'S CELEBRATED MOLLIS OIL.

It is a splendid lubricator for Stationary Engines, Printing Presses, Paper Mills, Saw Mills, Cotton and Woolen Mills, Spindles, &c. It is the *cheapest* and *best* Oil for Machinery, Harness, Belts, Boots and Leather generally. Warranted a Water-Proof Leather Preservative. It is penetrating, and renders soft and pliable the hardest leather.

Fire-Proof, Barn, Fence, Bridge and Roof Paint MIXED READY FOR USE.

Our Fire-Proof Barn, Fence, Roof and Bridge PAINT is unsurpassed for painting exposed surfaces, such as Tin, Iron or Wood Roofs, Wagons, Farm Implements, Fences, Barns, Cars, &c., &c. Our belting is more pliable, and hugs the pulley better and transmits more power than any other Belt. It does not pull out at the laceholes or rivets. It stretches less than any other Belt. It works equally well for the largest Driving Belts or for the fastest running machinery and smallest pulleys. OUR LACE LEATHER is made of Rawhide, by our patent process, without any tanning and is stronger and will wear better than any other. WE ALSO MAKE THE BEST PICKER LEATHER AND BELT GREASE IN THE COUNTRY. Satisfaction guaranteed.

Prices Mailed on Application. **HIRSHBERG, HOLLANDER & CO., 195, 197, 217 and 240 W. Pratt St., Baltimore.**

J. A. J. SHULTZ, President.

D. C. ALVORD, Secretary.

SHULTZ BELTING COMPANY, ST. LOUIS, MO.

Manufacturers of Shultz Patent Fulled Leather Belting, Lace and Picker Leather.

OUR BELTING is made of Leather, tanned on the surfaces only; the interior (which is the fibre and strength of the hide) is not tanned, but Rawhide fulled and softened by our patent process. Our belting is more pliable, and hugs the pulley better and transmits more power than any other Belt. It does not pull out at the laceholes or rivets. It stretches less than any other Belt. It works equally well for the largest Driving Belts or for the fastest running machinery and smallest pulleys. OUR LACE LEATHER is made of Rawhide, by our patent process, without any tanning and is stronger and will wear better than any other. WE ALSO MAKE THE BEST PICKER LEATHER AND BELT GREASE IN THE COUNTRY. Satisfaction guaranteed.

Southern Agents—FRED. N. OGDEN, New Orleans, La.

J. H. COFFIN & CO., Memphis, Tenn.

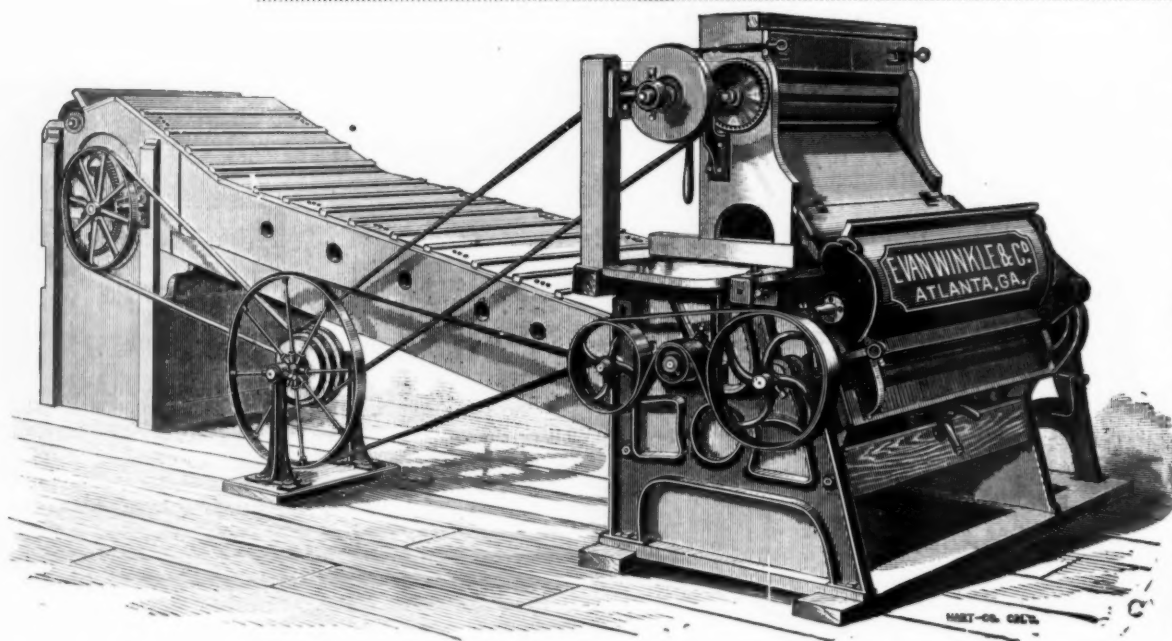
J. L. LINDSAY, Richmond, Va.

E. VAN WINKLE & CO., ATLANTA, GA.

MANUFACTURERS OF

COTTON SEED OIL MACHINERY,

From 5 to 100 Ton Capacity.

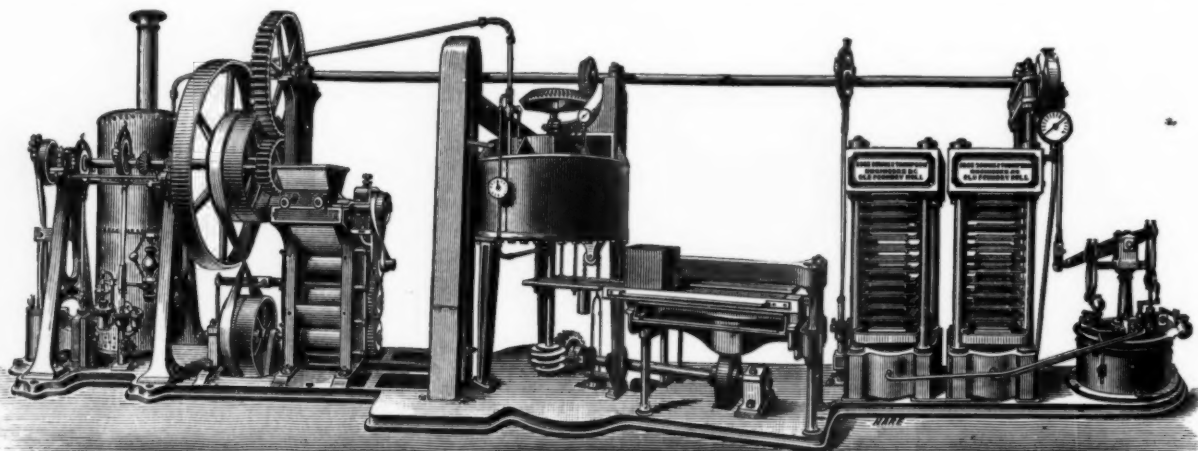
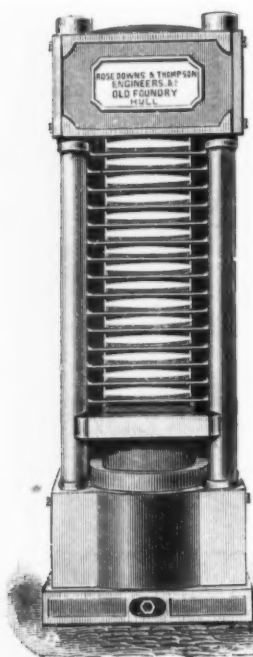


Plans of Mills furnished to effect best rates of Insurance. We build all our mills COMPLETE in EVERY DETAIL, and turn over the machinery in actual operation, under our GUARANTEE of CAPACITY and YIELD per ton. Also,

**Cotton Ginning
AND
Baling Machinery**

For Particulars and
Estimates, Address

E. VAN WINKLE & Co., ATLANTA, GA.



REVOLUTION IN Cotton-Seed Crushing.

UNQUALIFIED SUCCESS OF
**ROSE, DOWNS & THOMPSON,
HULL, ENGLAND.**

Anglo-American System of Extracting Oil from Cotton Seed,

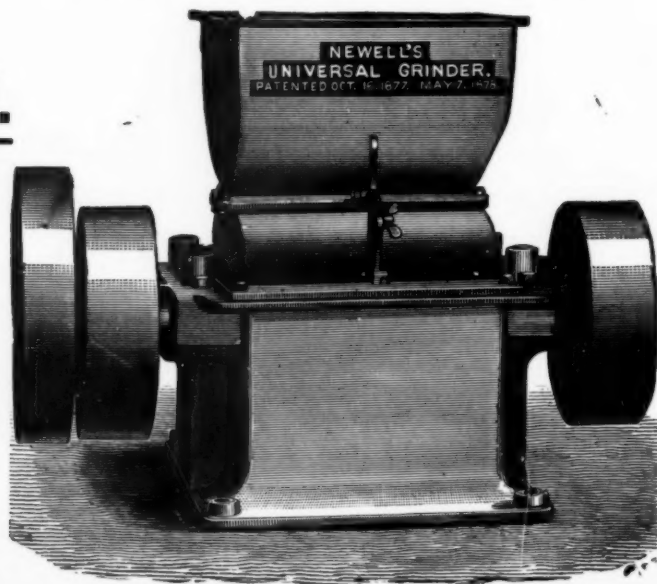
SOLE AGENTS FOR THE UNITED STATES AND CANADA,

The Newell Universal Mill Co.

10 BARCLAY STREET, NEW YORK,

Who also manufacture the NEWELL MILL in all its forms and sizes.

A large stock assorted sizes of Engines and Boilers constantly on hand for immediate delivery.



SACO WATER-POWER MACHINE SHOP,

—BIDDEFORD, MAINE,—

Manufacturers of

COTTON * MACHINERY

OF THE MOST IMPROVED PATTERNS.

CARDS,

Cylinders, 36x36 and 36x30, with 20 tops and Self-Strippers and Railway Troughs. Union Cards, with workers, strippers and tops.

FINISHER RAILWAY HEADS.

DRAWING FRAMES, ANY LENGTH, WITH 3, 4 AND 5 LINES OF STEEL ROLLERS.

English Slubbers and Fly Frames, With Long or Short Bolsters.

—**BOBBINS**— 12x6, 11x5½, 10x5, 9x4½, 8x4, 7x3½, 6x3, and 5x2½.

RING SPINNING FRAMES, 2, 1¼, 1½ AND 1½ INCH RINGS.

—TWISTERS.—

SELF-ACTING MULES, Parr, Sharp and Roberts' and Higgins' Pattern,

1½, 1 5-16, and 1¼-inch Gauge.

S. W. RICHARDSON, Treasurer,

No. 1 Simmons Building, Boston.

JAS. H. McMULLAN, Agent,

Biddeford, Maine.

ESTABLISHED

—**POOLE & HUNT,**—

—1851.—

Founders and Machinists.

—**POOLE & HUNT'S**—

LEFFEL * TURBINE WATER * WHEEL,

Prices as Low as any other First-Class Wheel.

—Machine * Moulded—

MILL GEARING.

Our plant for the production of MACHINE-MOULDED MILL GEARING is unequalled in the country, and we are prepared to fill orders with dispatch and at GREAT SAVING IN COST OF PATTERNS.



Shafting, Pulleys, HANGERS, PEDESTALS.

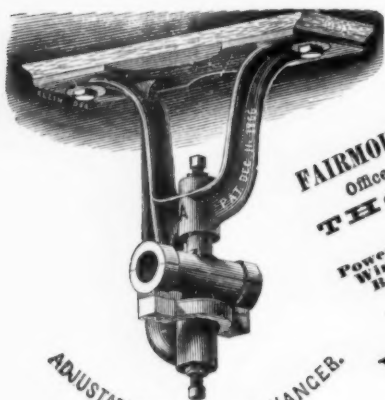
SHAFTING, PULLEYS, HANGERS and COUPLINGS, of latest and most approved designs.

N. B.—Shipping facilities the best in all directions.

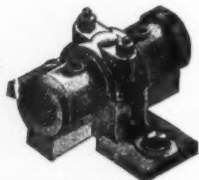
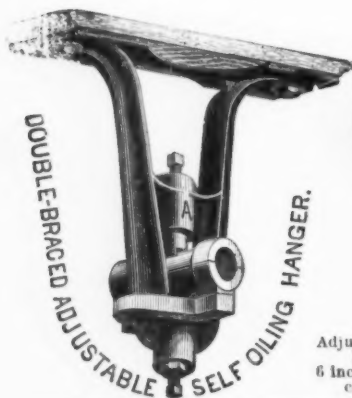
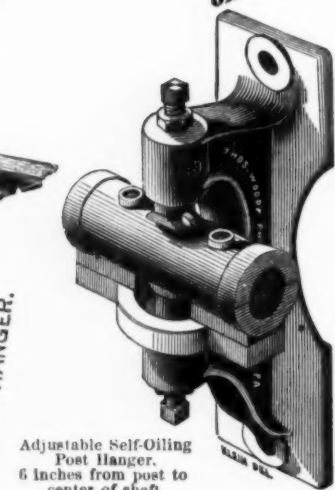
Send for Pamphlet. Send for Price-List.

List of our Gear-
ing Mailed on
Application.

—**POOLE & HUNT, BALTIMORE, MD.**—



ADJUSTABLE SELF-OILING HANGER.

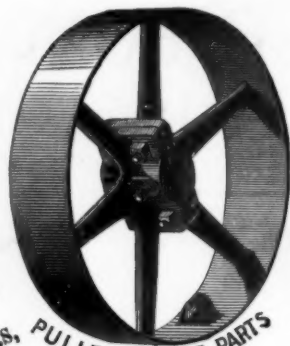
Ball and Socket
Self-Oiling Pillow Block.DOUBLE-BRACED ADJUSTABLE
SELF OILING HANGER.Adjustable Self-Oiling
Post Hanger.
6 inches from post to
center of shaft.

FAIRMOUNT MACHINE WORKS.
Office, 2106 Wood St., Philadelphia.
THOMAS WOOD,
Manufacture as Specialties

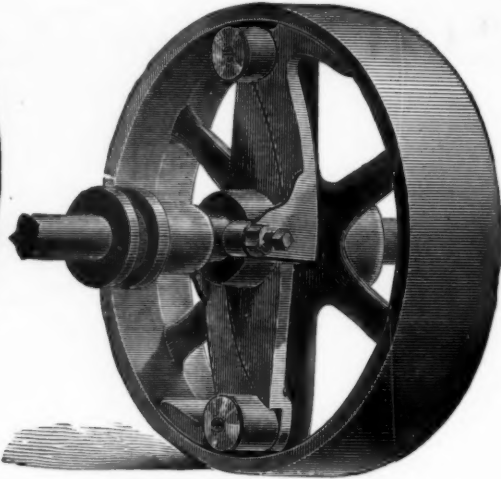
Power Looms, Patent Bobbin or Gull
Winding Machines, Plain and Presser
Heaving Machines, Flans and Reeling,
or Spooling Machines, Dyeing and Cal-
endering Machines,
Warping Mills,
16, 18 and 20 yards Circumference,
WITH IMPROVED HECKS.

SHAFTING,
With Patent
ADJUSTABLE SELF-OILING HANGERS,
8, 10, 12, 15, 18, 20, 24 and 30 in. drop.

Also WALL, POST AND GIRDER HANGERS.
Pulleys, from 4 inches to 10 feet in diameter.
PATENT FRICTION PULLEY.
Pulleys in two parts, any size required.
PATENT HOISTING MACHINES.
Oil Presses for Lard, Fish and Paraffine.



PULLEY IN TWO PARTS



PATENT FRICTION PULLEY.

Simple, reliable and very durable.
Suitable for any kind of driving, they
serve equally well as driver or driven.

Special Driving,
such as Angular, Muley, and Gallows Driving,
furnished for any position
where possible to transmit power by belts.
PULLEYS from 4 inches to 10 feet in diameter.

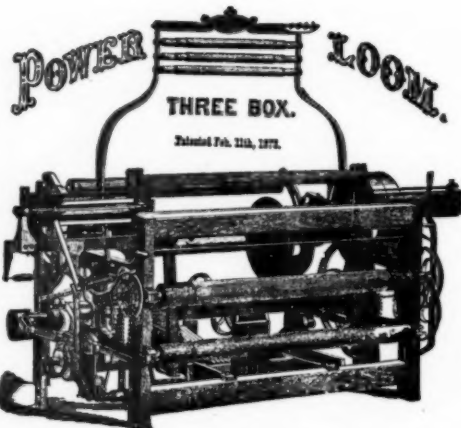
Why use old style Bearings, that require oiling
every day, when you can get Bearings at less cost
that only require oiling once in Six Months, and
thus save oil and labor enough to pay for the bear-
ings in use. Test the matter for yourselves; a
trial always secures the trade.

ADDRESS,

THOS. WOOD,

Office, 2106 Wood St.

PHILADELPHIA, PENNA., U. S. A.



TIRRILL'S EQUALIZING GAS MACHINE!

Only Gas Machine

that makes

UNIFORM**GAS.**

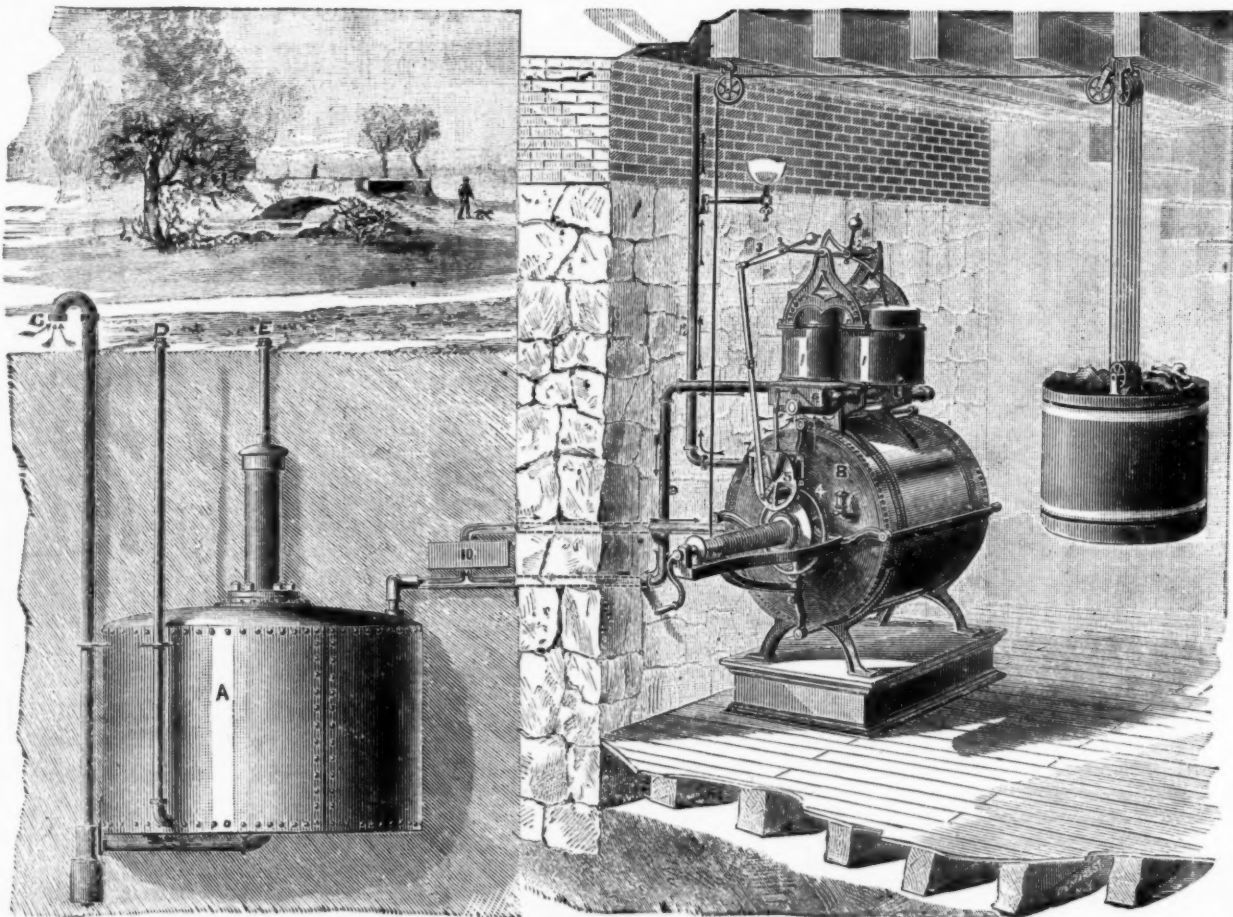
No Fire,

No Smoke,

No Smell.

Plain Bat Wing

Burners only

Required.**GAS ALWAYS****Perfect.**

Less than \$1.
Per Thousand
Feet.

Machines of any
CAPACITY.

Read Circulars
Before Buying.

Simple,
Perfect,
and Reliable.

**Absolutely
Safe.**

Approved by
Underwriters.

Read who en-
dorses Them.

FOR CIRCULAR AND FULL INFORMATION, ADDRESS:

TIRRILL'S GAS MACHINE CO., 39 Dey St., New York, N. Y.

HOWARD & BULLOUGH, & RILEY,

BUILDERS AND IMPORTERS OF

COTTON MACHINERY.

ALSO, IMPORTERS OF

Wool, Worsted and Flax Machinery and English Card Clothing. Hardened and Tempered Steel Wire a Specialty.

MILL ENGINEERS.

No. 19 PEARL STREET, BOSTON, MASS.

GREAT SUCCESS OF OUR
PATENT ELECTRIC STOP-MOTION,

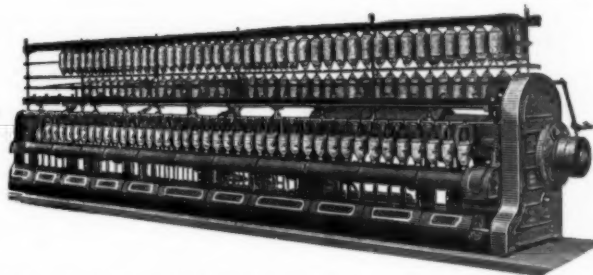
ALREADY APPLIED TO OVER
9,000 DELIVERY HEADS
62,000 INTERMEDIATE OF DRAWING, AND
ROVING SPINDLES.

The quality of Sliver produced by our Frames
surpasses all others, and Waste, Single and Roller Laps
are prevented, and production increased.

Correspondence Solicited.

Send for Circulars.

SLUBBING AND ROVING FRAMES WITH LATEST AND BEST IMPROVEMENTS.



SPECIALTIES:

EXHAUST OPENERS, LAPPERS, (LORD'S
EVENERS,) IMPROVED ROLLER CARDS,
PRODUCE MORE AND MAKE LESS
WASTE THAN ANY OTHER.

7,000 SELF-STOPPING WARPERS.
Already working with latest improvements.

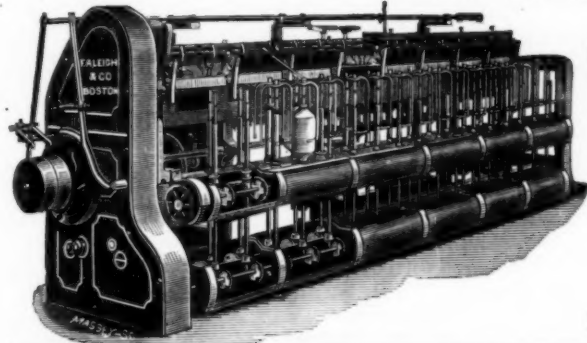
800 CYLINDER SLASHERS
Now at work in America alone

Patent and plain Spindle, Spinning and Twisting Frames,
Spoolers, Reels and Circular Warpings, Cloth Folders, Size Kettles
plain and Fancy Looms, Spindles, Flyers and Fluted Rolls.

F. A. LEIGH & CO.

Importers of Mill Machinery,

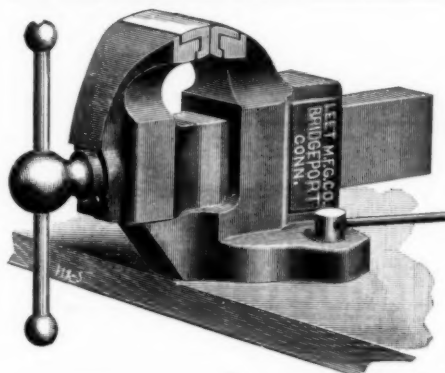
—No. 40 WATER STREET, BOSTON, MASS.—



Openers, * Lappers, * Cards, * Drawing,
Slubbing and Roving Frames,
CARD CLOTHING, Etc.

Correspondence Solicited.

Send for Circulars.

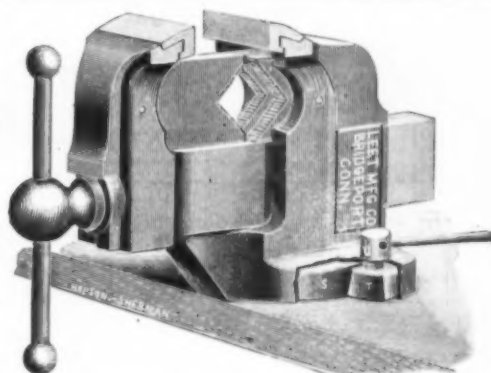


THE LEET M'FG CO.'S
Patent Sliding Jaw Bench Vises.

WITH SWIVEL BOTTOM.

These Vises can be used either as a Sliding Jaw or a common Screw Vise
by simply turning in or out the small screw in backside of the head or base.
It will hold work with a more powerful grip than any other Vise. The
screw will never work loose when either chipping or filing. The workman-
ship is perfect; all the working parts are made of steel and interchangeable.
Sold by all Hardware Dealers. Send for Descriptive Circular and Price
List to

C. D. LEET, Bridgeport, Conn.



Buerk's Watchman's Time Detector.

—IMPORTANT FOR ALL LARGE CORPORATIONS AND MANUFACTURING CONCERNS.—



Capable of controlling with the utmost accuracy the motion of a watchman or patrolman as the same reaches different stations of his
beat. The instrument is complete in itself, portable, and as reliable as the best lever watch. It requires no fixture or wires communicating
from room to room, as is the case with ordinary watch clocks.

The Instrument will in all Cases be Warranted Perfect and Satisfactory.

P. O. Box 2470.

J. E. BUERK, Proprietor, No. 230 Washington St., BOSTON, MASS.

BILLINGS' PATENT BREECH-LOADING SINGLE BARREL SHOT GUN.

Provided with Close
Shooting Detachable
Muzzle for contracting
the shot.

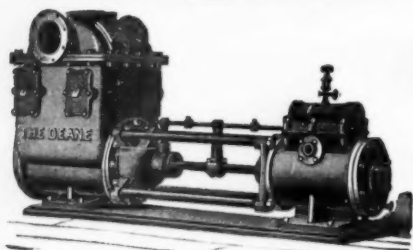


Uses the "A"
Brass or Paper
Shells.

MANUFACTURED AND FOR SALE BY

THE BILLINGS & SPENCER CO.,
HARTFORD, CONN.

THE DEANE STEAM PUMP CO., HOLYOKE, MASS.



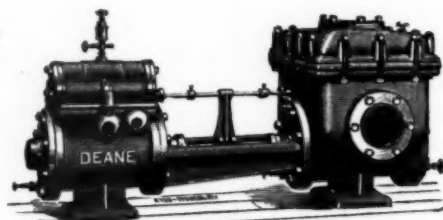
MANUFACTURE
Every variety of Pumping Machinery

VACUUM PUMPS FOR SUGAR WORK, ETC.

IRRIGATION PUMPS ARE SPECIALTIES.

Water Works Pumping Engines for Cities and Towns.

SEND FOR NEW ILLUSTRATED CATALOGUE.



RENDROCK POWDER COMP'Y,

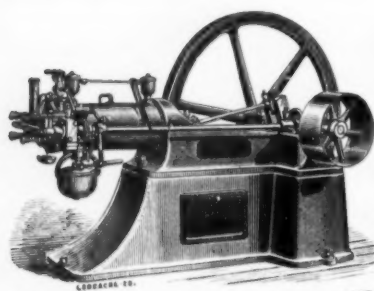
MANUFACTURER OF THE INGREDIENTS
OF THE NEW PATENT BLASTING POWDER:

RACKAROCK.

IT CONTAINS NEITHER GLYCERINE NOR
NITRO-GLYCERINE IN ANY FORM.

It Does Not Freeze. Can be shipped by express, railway or steamship lines. Neither of the two ingredients are explosive until combined, and when combined are safer than Dynamite. This explosive approximates Nitro-Glycerine in strength. Send for circulars to

RENDROCK POWDER CO., 23 Park Place, New York.



Over 14,000 in Use.

Otto Gas Engine

20 to 70 per ct. less Gas
consumption than
ANY other ENGINE.

Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases.

No explosions, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Recommended by insurance companies. UNSURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-horse power.

Branch Office, 214 Randolph St., Chicago.

SCHLEICHER, SCHUMM & CO., N. E. cor. 33d and Walnut Sts., Philadelphia.

GEORGE DRAPER & SONS, Manufacturers of COTTON MACHINERY

Telegraph Address and Railroad }
Station, MILFORD, MASS.

HOPEDALE, MASS.

Do not fail to visit the World's Exposition at New Orleans, La., and see in operation OUR NEW and IMPROVED MACHINERY for ROVING, SPINNING, SPOOLING, WARPING and TWISTING.

Washburn & Moen Manufacturing Co., Worcester, Mass.

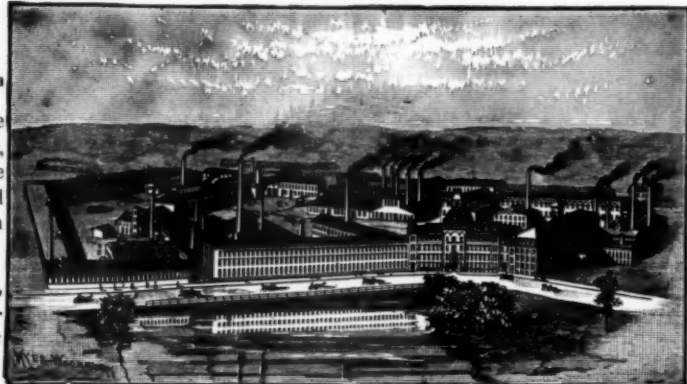
Wire Drawers, and Manufacturers of Iron and Steel Wire of Every Description.



Iron and Steel Telegraph
and Telephone Wire.

Patent Steel Wire Bale
Ties, Pump Chains,
Chain Wire, Steel Wire
for Springs, Needles and
Drills, Watch Main
Springs.

Send for Price-Lists,
Circulars and Descriptive
Pamphlets on Our
Specialties.



NEW YORK WAREHOUSE:

21 Cliff Street,

New York City.

GLIDDEN PATENT STEEL BARB WIRE.

The Best Fence Material in Use.

For Sale by Special Agents and Hardware

Proof against Fire, Wind and Flood.

Dealers in all Parts of the United States.

CHICAGO WAREHOUSE:

107 Lake Street,

Chicago, Illinois.

Published Every Saturday by
BIGSBY & EDMONDS.

R. H. EDMONDS, EDITOR.

—OFFICE,—
71 and 73 Exchange Place, Cor. Commerce St.,
—BALTIMORE.—

NEW YORK BRANCH OFFICE:
Room 8, No. 118 Fulton Street,
J. W. BIGSBY, Resident Partner.

—SOUTHERN OFFICE, ATLANTA, GA.—
I. W. AVERY, Manager.

JAMES L. ELY,
Advertising Agent for New York and Vicinity.
Room 14, 39 Park Row, New York.

To UNITED STATES AND CANADA,	\$3.00
OTHER COUNTRIES, - - -	4.50

One square (14 lines Agate, 1 inch)	1 time.....	\$ 1.50
" " " " " "	4 ".....	5.00
" " " " " "	3 mos.....	10.00
" " " " " "	6 ".....	18.00
" " " " " "	1 year.....	32.00

For advertising on outside pages add 50 per cent. to the above rates.

Reading Notices 50 cents per line each insertion.

BALTIMORE, MAY 23, 1885.

THE rolling mill of the Potts Bros. Iron Company, limited, Pottstown, Pa., which has been lying idle since last fall, started up in all its departments May 18 on single turn, giving employment to a large number of men. The firm has received sufficient orders to keep them going for some time. The iron industries, it is said, are picking up considerably in that section of the State. The rolling mills of the North Chicago Mill Company, situated at South Chicago, also resumed operations the same day with a force of 1,800 men.

The Position of Cotton.

The cotton year is now so far advanced that Messrs. Latham, Alexander & Co., of New York, have issued a statement showing the statistical position of cotton, with a few comments as to the outlook for the future. The crop, they say, will not vary materially from 5,700,000 bales. This much being established, it is, they state, apparent that the supply will at no time be large, and that with any revival in trade it will be inadequate for the requirements of the world, unless spinners' takings should be checked by the usual result of light supply—an advance in price.

The position of cotton, both in price and supply, is exceptionally favorable now, as compared with former years:

	1885.	1884.	1883.
Receipts at U. S. ports since 1st September.....	4,649,924	4,733,337	5,737,192
Total exports since 1st September.....	3,601,402	3,499,989	4,626,711
Stock in U. S. ports.....	493,129	525,031	559,888
Stock in Liverpool.....	976,000	967,000	960,000
Afloat for Great Britain	134,000	197,000	289,000
Total visible supply in U. S., Europe & at sea.....	2,819,901	2,892,295	2,981,360
Price of middling up- lands in New York.....	10½	11½	11
Price of middling up- lands in Liverpool.....	5 15-16	6¼	5¾

PRICES OF COTTON, BASIS MIDDLING, FOR FUTURE
DELIVERY IN NEW YORK.

June delivery	10.81	11.61	11.04
July "	10.86	11.75	10.95
August "	10.91	11.87	11
September "	10.70	11.56	10.57
October "	10.38	11.05	10.26
November "	10.34	10.87	10.16
December "	10.24	10.86	10.18
January "	10.34	10.66	10.24

The stock in Liverpool is 19,000 bales less than last year, and only 18,000 bales more than in 1883.

The stock in the United States ports is 32,502 bales less than last year and 66,759 bales less than in 1883.

The total visible supply of cotton in the world is 310,394 bales less than last year and 649,959 bales less than in 1883.

Commenting on these facts Messrs. Latham, Alexander & Co. say :

Were general business in a normal or usual condition, cotton, with its position so strong, as shown above, would naturally be higher. But various causes have prevented it from feeling the influence of its own exceptional situation. Chief among these causes, and the one dating farthest back, has been the long felt and much harped upon dullness in trade. Hardly secondary to this in its effect upon prices has, for some months past, been the fear that England was about to become involved in war with Russia. Happily, this great war cloud that threatened Europe has blown over, and signs of improving trade are daily becoming more apparent. Only yesterday 20,000 packages of cotton goods—the greatest number ever offered at a single sale—were sold at public auction in New York at highly satisfactory prices.

With returning activity in manufactured goods; with peace seemingly assured, and with cotton standing again on its own merits, the outlook for planters and merchants is more cheerful than it has been for many months.

Latest accounts from the East India crop are to the effect that it is backward. In some districts the yield is turning out disappointingly small; in others it is only three-fourths of last year's, and in others again it is reported as being very short—the shortage likely to increase as the season advances.

At the opening of the planting season in our own country the ground was in unusually fine condition, owing to the hard frosts of the past winter. Planting was satisfactorily completed, without decided increase in the acreage devoted to cotton, and the growing crop, though late, has up to this time progressed favorably; but no prediction as to the ultimate out-turn of a cotton crop can be made at this early date.

IN the column of Business Chances is an advertisement of textile machinery wanted.

Mr. John W. Green, one of the directors of the Virginia Iron Ship-building Co., of Alexandria, whose letter describing the very extensive works of that company was published in our last issue, writes us that his company expect to bid for the construction of the large steamers which are shortly to be built for the navy. Secretary Whitney has advertised for the submission of new plans and proposals for two cruisers of not less than 3,000 nor more than 5,000 tons, costing, exclusive of armament, \$1,100,000 each; one heavily-armed gunboat of about 1,600 tons displacement, costing, exclusive of armament, not more than \$520,000; and one light gunboat of about 800 tons displacement, costing, exclusive of armament, not more than \$275,000. These vessels are to be of steel. Should the Virginia Iron Ship-building Co. receive the contract for one or more of these vessels, it would be a matter for general congratulation. Not only to

Virginia and the South would it be of great importance, but to the country at large it would be of interest to know that within a few miles of the capital of the country there is a shipyard capable of building the highest class of modern war ships. With the exception of Mr. Green, who is a native of Alexandria, the stockholders in this company are prominent business men and capitalists of Massachusetts and Maine, some of whom at least are, from practical experience, thoroughly conversant with ship-building. Speaking of the present depression in ship-building, as in all other industries, Mr. Green says "we hope that a change will take place this year that will enable us to start up our works to their full capacity and make them do what we are capable of doing—work equal to the largest iron ship-building companies in the country."

There are quite a number of other points in the South besides Alexandria where the facilities for the establishment of ship-yards are exceptionally good. The raw material is near at hand and the cost is low; the climate is such that outdoor work in the yards could be readily carried on for a very large part of the year; and as the cost of living in the South is less than in the North, the price of labor is naturally less. At present there is little or no demand for new iron vessels, but when the shipping trade becomes more active the South ought to develop a large ship-building business.

PROBABLY the finest trade issue of a paper ever published in the South, excepting one or two that have appeared in some of the larger cities, is that of the Goldsboro (N. C.) *Messenger* of May 15. It is a splendid paper—a credit not only to Goldsboro, but to North Carolina—and its wide circulation will be sure to result in great benefit both to the city and the State. It is another evidence of the enterprise of the Southern press that will meet with warm commendation everywhere.

In our Construction Department we noted a few weeks ago the organization at Ocala, Fla., of the Homosassa Company, with a capital stock of \$200,000, to develop and improve a large tract of land on the gulf coast of Florida. Owing to the lack of transportation facilities that portion of Florida bordering on the gulf has developed much less rapidly than other parts of the State. As transportation facilities were lacking, of course, hotel accommodations were also very limited. The superior advantages of the gulf coast have, however, attracted increased attention and quite a number of railroad companies have been organized of late to build roads to different points on the gulf. This new company, above referred to, has purchased several thousand acres of land on the widely-known Homosassa river, embracing the celebrated Yulee plantation, which they intend to improve at once in such a way as to make it certain that it will soon become one of the most important winter resorts in the country, while its natural advantages of soil, climate, proximity to the gulf, abundance of fish and game, together with other attractions, will be sure to draw a large permanent population as soon as the place can be reached by railroad. As we stated a few weeks ago the company will at once commence to build a large hotel, intending to open it by the 1st of December next under the management of Mr. Campbell, the proprietor of the St. James Hotel, Jacksonville, who is one of the incorporators of the Homosassa Company. The directors of this company are not only men of large wealth, but are of the highest standing in the commercial and social world. They have gone into this work in a manner calculated to ensure success, their plans for the development and improvement of their property having been carefully and thoroughly prepared. It is quite probable that the whole gulf coast of Florida will be decidedly benefited by the influences emanating from the development of the Homosassa property, and thus this comparatively unknown section will soon be receiving a large share of the attention of tourists, immigrants and investors, hitherto monopolized by the central part of the State. The great possibilities of Florida in the way of population and wealth are far beyond what has yet been comprehended, and the next five or ten years will show a wonderful advance in the progress of that State. Every enterprise like that of the Homosassa Company will help on the growth and prosperity of the Land of Flowers.

THE Clifton Cotton Mills at Spartanburg, N. C., according to the annual report of the treasurer, made during the past year, a net profit of \$30,000, or 6 per cent., which, considering the great depression in the cotton goods trade, is an excellent showing.

Notes * From * Dixie.

BY CHAS. H. WELLS

The completion of the Greenville & Laurens Railroad still hangs fire, the board of directors having again indefinitely postponed their meeting. As matters now stand the Greenville people want the Georgia Central Railroad Company to build and control the new line. The Laurens people don't quite know what they want. They say that if the Georgia Central people get the new road it will injure Laurens and benefit Greenville; that the Georgia Central people would then buy the Laurens and Newberry branch of the Columbia & Greenville road and make Laurens a non-competitive point. Taking this view of affairs the Laurens directors of the G. & L. road will do all they can to keep the new line out of the hands of the Georgia folks.

The idea that the Columbia & Greenville Company would sell its line to Newberry and thus give the Georgia Central additional scope for operations in South Carolina, seems truly absurd. Newberry is a thriving town, growing and lively; it would be folly for the C. & G. road to invite competition to that point and to abandon its business in Laurens! The good people of Laurens are rather hasty in their opinion that any material difference in freights will result from the completion of the Greenwood, Laurens & Spartanburg Railroad. Only a few days ago one of the Augusta papers printed an interview with the general freight agent of the Columbia & Greenville road in which it was stated that an agreement had been entered into by the C. & G. and the G. L. & S. roads to maintain equal freight rates from Greenwood, Laurens and competitive points.

In the meantime, while all this foolishness is going on, the taxpayers of Greenville and Laurens counties are paying an interest on bonds issued to build the road. The directors meet occasionally at Greenwood, where they enjoy a good dinner, smoke their cigars, and then return home again, after having "resolved to postpone action until the next meeting." This is real nice—for the directors. It was Chesterfield, I think, who said: "Haste is indecent." Truly Chesterfieldian are these Greenville & Laurens directors; it needs the sharp stick of popular opinion to stir them up to some decisive action.

The difficulties that for some time have existed in the State of Georgia, growing out of several suits against the East Tennessee, Virginia & Georgia Railroad Company, have at last been amicably adjusted, and Major Henry Fink is again in possession of the road. It is the intention of Receiver Fink to spend a good deal of money on the road, getting it into first-class condition. A good deal of new steel rail will be laid and many improvements in the equipment are under headway. Major Fink, a few years ago, successfully brought the Norfolk & Western Railroad out of bankruptcy, and he is better qualified than any other man in the South to manage the affairs of a great corporation like the East Tennessee, Virginia & Georgia.

The Greenville *News* says: "The Richmond & Danville Railroad Company has taken another step forward in the line of improvements, and has introduced the block signal system along its entire line, from Richmond to Charlotte. This system is similar to that in use by the Pennsylvania road, except that it is not worked by electricity. The block containing the light is placed on top of the depots, where it can be seen for a considerable distance by engineers coming either way. The signal is worked by the telegraph operator from his office, who makes it display a white, red or green

light, as occasion requires, the white light being the clear track signal. This is the best and safest signal system known to railroads, its chief merit being that it is sure and certain. The Richmond & Danville track is now being stone ballasted, and with swift passenger engines, steel rails and block signals, it possesses absolutely every appliance for safety and comfort that is known to modern railroads."

The Hickory, N. C., *Press* says in its "State News" department: "About thirty-two tobacco factories will resume work in a short time at Winston, working about 3,000 laborers. The most picturesquely named place in North Carolina, or perhaps in any State, is 'Maiden's Bosom,' Swain county. The mica mine near Webster, Jackson county, is yielding \$150 worth of mica per week, which is sold every Saturday."

I see it reported in the Southern papers that George S. Scott, formerly president of the Richmond & Danville Railroad, is about to return from Europe, whither he went after resigning the presidency of the Richmond & Danville. No one seems to know what his sudden return means. Mr. Scott is one of the leading spirits of the Richmond & Danville. To him is due its present organization, and of him it has been said that he carried the system in his vest pocket. He is certainly a remarkable man, and his investments in this system were the result, so he said, of his belief in the growing prosperity of the South. The capital stock of the Richmond & Danville road is only \$5,000,000. Its charter will not allow it to own stock in any road not connecting directly with it, so the Richmond & West Point Terminal Company was organized with a capital of \$15,000,000, of which a majority is owned by the Richmond & Danville proper. The Terminal Company owns, leases or controls a long series of roads reaching into Georgia, the most important of which are the Virginia Midland, the Western North Carolina, the Charlotte, Columbia & Augusta, the Columbia & Greenville, the Georgia Pacific, and the Atlanta & Charlotte Air Line.

It will be seen at a glance that the \$5,000,000 capital stock of the Richmond & Danville railroad controls absolutely over 2,500 miles of road. Of what other system can this be said? Even if the stock sold at par an investment of \$2,600,000 would make a man master of 2,500 miles of road, traversing an old and populous section of the country. But the stock does not sell anywhere near par. There has not been a sale of it recorded in the stock exchange for two or three weeks. The highest price this year was 54 on March 6. Last year the highest price was 61 and the lowest 32. The system, though a Southern one, is really controlled by Northern capitalists. In the board of directors, beside Mr. Scott, are George I. Seney, W. P. Clyde and John H. Inman.

It was my good fortune last week to visit the Cooper Limestone Springs College near Gaffney City, S. C. This institution was founded in 1846, under the name of "Limestone Springs Female High School," by Rev. Dr. Thos. Curtis of England. As early as the year 1835, attracted by the famous Limestone Spring and charming scenery surrounding it, a number of gentlemen formed themselves into a joint stock company with the purpose of making Limestone one of the grandest watering places in the South. The grounds were laid off and put in order, and the present main building was erected of the very best materials that could be obtained, at a cost of between sixty and seventy-five thousand dollars. When finished, it was capable of accommodating from two hundred and fifty to three hundred boarders, and in point of size and magnificence it

stood without a rival in South Carolina. Limestone was then in the back-woods of South Carolina, over a hundred miles from any railroad or steamboat line of travel, and the whole Piedmont region in which it is situated was then but little known to the health and pleasure seekers of the world. As a consequence the patronage received as a watering place was not commensurate with the expectations of the company, and in a few years the entire property was sold to the State, and in 1846, as already stated, Dr. Curtis and son purchased it.

Dr. Curtis was drowned in 1859, and after the termination of the war the property changed hands several times, until finally it came into the possession of that great philanthropist, Hon. Peter Cooper, of New York, who, five years ago, donated it to the Spartanburg Baptist Association for school purposes. The present principals were elected by the trustees appointed by that body and opened the school on the 3d of October, 1881. The name of the school was changed in honor of its princely benefactor, and it is now in its fourth annual session. The patronage bestowed upon it the second year of its existence was nearly double what it received the first year, and the attendance is increasing every year. Prof. Griffith, the principal, is also proprietor of a flourishing newspaper in Gaffney city.

DRIFTWOOD.

A factory to make fruit evaporators is about to be started in Greenville, S. C., by local capitalists.—The Camperdown Cotton Mills, located on Reedy river near Greenville, are to be sold under mortgage.—The stock of the Georgia Railroad sells readily in Augusta at fifty per cent. premium.—North Carolina Railroad stock, paying a dividend of six per cent. a year, sells at par in Raleigh.—A party of Chicago capitalists are spending a week among the marble quarries at Tate, Georgia.—Dallas, N. C., has a new paper, *The Current*.

The Exposition.

[Special correspondence BALTIMORE MANUFACTURERS' RECORD.]

NEW ORLEANS, LA., May 15, 1885.

Hon. Henry Watterson, in his eloquent address before the National Cotton Planters' Convention, which met in the Music Hall of the Main Exposition Building last February, said that the South had resources unequalled upon the face of the globe, and predicted that the time was not far distant "when the seat of the wealth of the world will be transferred to this Valley of the Mississippi." "The money center," he said, "is already departing from Lombard street in London to Wall street in New York. The sceptre of the mines is coming from Pittsburg in Pennsylvania to Birmingham in Alabama, and when the inevitable transfer is made, New Orleans, not New York, will hold commercial sovereignty over the land and the sea, for as every drop of water that falls from Heaven between the Alleghanies and the Rocky Mountains, flowing westward and southward, finds its way to the father of waters, and thence to the Gulf of Mexico, so surely will the golden streams of commerce, swollen by the products of the West and the South, roll hither as the star of empire crosses and recrosses the continent."

If these observations sound extravagant to any one unacquainted with the resources of the South, such impressions would soon be removed by a visit to the Exposition and an examination of the exhibits from the States of this section. A short description of some of these exhibits will sustain Mr. Watterson's assertion that "the South has resources unequalled upon the face of the globe."

TENNESSEE

is justly regarded as one of the richest States in this section. Owing to its great

diversity of soil and climate every crop grown in any part of the Union is produced within its borders. The exhibit contains cereals of every kind and unexcelled in quality. The corn and wheat is exceptionally fine, and demonstrates the perfect adaptability of the soil to the production of these important food crops. Cotton, tobacco, oats, rye, barley, broom corn and other agricultural productions are shown in great abundance, and the numerous variety of grasses native to the State, show the capacity for sustaining large numbers of live stock on its pastures alone. The fruits and wines are exhibited in profusion. The specimens of woods are very large and handsome, showing the value of the timber resources of the State. The mineral exhibit is one of the most attractive and extensive at the Exposition, including all of the minerals found in any of the State exhibits. The iron mining interests are fully represented. The most beautiful display of marbles here is shown in this department. It embraces one hundred and eighty fine specimens of the variegated variety. It is said that the sienna and variegated marbles of Italy have been supplanted by the more brilliant stones from Tennessee.

Good judgment has been displayed in the management of the exhibit, and it has been managed to the best advantage. Mr. Louis McWhirter, the efficient acting commissioner, informs me that the States will derive immense benefit from the work she has done here. Inquiries regarding the price of agricultural and mineral lands are being received daily at the State department of agriculture, and he thinks fully 1,500 emigrants (as I mentioned in my last letter,) have gone into Tennessee, as the direct result of this exhibit.

MISSISSIPPI,

being the largest cotton producing State in the South, naturally devotes much of her space to a display of the fleecy staple. Her crop of cotton in 1880 was 963,111 bales, leading Texas by 157,827 bales; Louisiana by 454,542 bales; Georgia by 148,670 bales; Alabama by 263,457 bales; Arkansas by 354,855 bales; South Carolina by 440,563 bales, and she produced 147,992 bales more than the aggregate production of North Carolina, Tennessee, Florida, Missouri and Virginia. To show her claim to superiority in this direction, the State has erected a splendid cotton pavilion which is visible from all parts of the Government Building. In addition to this beautiful exhibit, she shows the staple in all its stages from the stalks, loaded with fruit to the manufactured product, including the seed, lint, cotton-seed oil and meal. But it is not alone by this single crop that Mississippi is represented. The cereals and grasses are also abundant. One screen contains fifty-eight varieties of grasses from one plantation, while immense piles of bales of hay serve to show the value of grasses when cured. Sugar, syrup, and the splendid ribbon cane, occupy prominent positions. The forestry resources of the State are really wonderful. A large block cut from a giant cypress has a railing around it, forming a large platform, upon which is placed a number of chairs, and it is used by visitors for a resting place, being sufficiently large to comfortably seat thirty or forty persons. It approaches very nearly the dimensions of the famous California tree, exhibited in sections at the Philadelphia Centennial. There are also a great number of other varieties of native woods of commercial importance. Wool, wine, silk and tea add much to the interest of the exhibit. There are over 100 samples of wine from forty different vineyards, while the fine cocoons and handsome specimens of silk shows this to be a gaining industry and one that promises good results.

ALABAMA,

The mineral wealth of Alabama has already been fully treated in this correspondence in the descriptions furnished of the various railroad exhibits, in which this State is in-

terested, but the timbers deserve notice. There are no less than ninety-nine varieties of the most useful woods on exhibition. Among these may be mentioned the yellow pine, holly, red maple, sugar maple, wild cherry, gum, dogwood, tupelo gum, (one of the largest trees, abundant in the immediate forests swamps in the lower part of the State,) black gum, water ash, green ash and white ash, red bay, white elm, (21 inches in diameter,) mulberry, white walnut, black walnut, white, or scaly bark, hickory, white oak, post oak, live oak, chestnut oak, water oak, red oak, chestnut, iron-wood, beech, birch, black walnut, cypress, red cedar, long-leaf pine and loblolly pine. The agriculture exhibit of this State includes cotton and all the cereals.

The Georgia, North Carolina, South Carolina and Florida exhibits have been described in previous letters. The brief description here given of Tennessee, Mississippi and Alabama, are merely outlines of these exhibits, but will convey some idea of their variety and magnitude.

Now that there are strong probabilities that the Exposition will continue next winter, it will perhaps be interesting to the readers of the MANUFACTURERS' RECORD to know the extent of space occupied by the various foreign countries, the States, and the individual exhibitors.

The Government and States Building is 885 by 565 feet. It contains on the floor the government exhibit and the exhibits of every State and territory in the Union, except Utah. The government occupies 109,325 square feet; Texas 18,145; California 14,450; Kentucky 13,100; Mississippi and Tennessee 11,812 each; North Carolina 11,675; South Carolina, Virginia, Iowa, Minnesota, Nebraska, Kansas and Dakota 10,175 each; Louisiana 9,805; Arkansas 9,800; Florida 8,325; Maryland 8,269; Alabama 7,800; New Jersey 7,400; New York 7,200; Massachusetts 7,031; New Mexico 6,900; Indiana 6,800; Illinois, Wisconsin, Ohio and Michigan 6,750 each; Colorado 6,600; Connecticut 6,468; Missouri 6,000; Pennsylvania 5,400; Maine 4,417; Montana 4,275; New Hampshire 4,305, and the other States and territories running from 3,957 to 2,160 feet. The Queen & Crescent Railroad exhibit occupies 10,125 feet; the Richmond & Danville 12,045, and the Chicago, Milwaukee & St. Paul Railroad 2,500. In the gallery the colored department has 22,600 feet; the educational department 58,000; and the department of women's work 35,400 feet.

The foreign exhibits are in the Main Building, and together they occupy about 180,000 feet. The machinery exhibits have 455,400 square feet; the general exhibits 413,400 feet, and the other exhibits over 450,000 square feet.

The committee appointed to solicit subscriptions to defray the expenses of continuing the Exposition here met with great encouragement, and it is to be hoped that their efforts will meet with complete success.

Director-General Burke tendered his resignation to-day, and it has been accepted by the Board of Management. The United States Commissioners met this morning and passed resolutions complimentary to Major Burke, and requesting him to remain at the head of affairs. It was decided to send a copy of the resolutions to President Cleveland. Major Burke is justly popular with all the exhibitors in all the departments, and his resignation is greatly regretted.

L. A. R.

THE Augusta, Ga., Chronicle, speaking of the representative of South Carolina at the New Orleans Exposition, says:

"Georgia and South Carolina owe a deep debt of gratitude to Luther A. Ransom. He is the kind of young man the South should be proud of and delight to honor."

North Carolina Pines.

BY T. K. BRUNER.

[Written for the MANUFACTURERS' RECORD.]

In your issue of May 9th you reprint a paragraph from the Chatham (N. C.) Record, which states that "the only forest of white pines in North Carolina, east of the Blue Ridge mountains, is in Chatham county," &c. This paragraph has been called to my attention several times, and it seems, from carelessness in reading, or from a general ignorance of the species of the pine, the article has been misunderstood and perverted into meaning that pine was exceedingly scarce in the State.

Of course, the Record only meant to remark on the existence of a forest of white pine, (*pinus strobus*), on the banks of the Rocky river, in Chatham county. It is an interesting fact to know that this species, which belongs to the colder climates of the North, is to be found in that locality. Newfoundland, the north shores of the Gulf of St. Lawrence, and southward through the Northern States to Pennsylvania, and with the Alleghany mountains as far South as North Georgia, the tree is to be found, but it only attains its perfection in the regions of the North. It is a tree of the first economic value and is used in the manufacture of lumber, shingles, &c., and is the most common and valuable building material of the Northern States. But in North Carolina, and, in fact, in the few localities south of the great forests of the North, it is so inaccessible—from the fact that it grows on the mountain sides—as to be practically of no value.

It must not, therefore, be confounded with the trees that make up the wealth of our forests—yellow pine, (*pinus mitis*), old field pine, (*pinus taeda*), or long-leaf pine, (*pinus australis*). This last is of great economic value, and has been the source for the filling of many coffers in the State. It is also responsible for the descriptive sobriquet, "tar, pitch and turpentine" State, which has been handed down to us from the pleonastic geographers of the earlier days.

These pines are largely manufactured into lumber, and are used in construction of all sorts—for ship building, fencing, ties for railways, &c. *et cetera*. The exudation of this species, (*pinus australis*), is used almost exclusively in the production of tar, pitch, rosin and spirits of turpentine, manufactured in the State.

It may not prove entirely devoid of interest to insert some statistical facts which will tend to an easy comparison of the product of the various Southern States. The production of naval stores, for the last census year, as given by the latest report, is as follows:

States.	Turpentine. Gallons.	Rosin. Barrels.
Alabama.....	2,005,000	158,482
Florida.....	1,026,350	66,281
Georgia.....	3,151,500	277,500
Louisiana.....	250,000	20,000
Mississippi.....	250,000	20,000
North Carolina.....	6,279,200	663,967
South Carolina.....	4,593,200	333,940
Total.....	17,565,250	1,542,170

Besides this eighty thousand barrels of tar were manufactured in North Carolina during the same period, while in all the other Southern States only ten thousand barrels were produced.

While a larger proportion of the pine forests of North Carolina have been destroyed than in any other State, it may be accounted for in the excessive production, as shown above; and then it must be remembered that this State has been for a long time the seat of important lumbering operations. But probably the most destructive element in our pine forests is in the manufacture of naval stores, which is carried on in the most thoughtless and wasteful manner, by careless, cheap labor. "Boxing" the trees damages them very materially, rendering them easily broken down by winds, and greatly reduces their value if felled for the saw mill. The profits derived from the manufacture of naval stores is in no sense commensurate with the enormous injury inflicted upon the forests. The most available of our forests

have been consumed, but with the building of new railroads, which are opening forests before inaccessible, and with the improved implements recently introduced into the section by Walter Watson, Esq., of Fayetteville, N. C., it is thought that the production will hardly fall short of the last census reports, unless overproduction so cheapens the products as to render it unprofitable.

From that source the following estimate of merchantable pine in North Carolina is taken:

Counties.	Feet—Board measure.
Bladen.....	288,000,000
Brunswick.....	141,000,000
Chatham.....	448,000,000
Columbus.....	288,000,000
Cumberland.....	806,000,000
Duplin.....	21,000,000
Harnett.....	486,000,000
Johnston.....	563,000,000
Moore.....	504,000,000
New Hanover.....	96,000,000
Onslow.....	34,000,000
Robeson.....	864,000,000
Sampson.....	608,000,000
Wake.....	46,000,000
Wayne.....	40,000,000
Total.....	5,229,000,000

This estimate may be increased by the addition of the forests of Montgomery and other counties.

The statistics of the lumber industry of the State, as shown in the census, without distinction between the various kinds of woods, develops some interesting figures. We are told that there are 776 establishments with a capital of \$1,743,217 invested. On an average five thousand, three hundred and odd persons are employed annually. The value of materials, including logs and mill supplies, amounts to \$1,577,139, while the total value of all products aggregates \$2,672,796.

The estimated consumption of wood for domestic purposes in the State is 7,434,690 cords, which is worth \$9,019,569.

These look like enormous figures for the single item of wood, but taking the population at a million and a half, and the wood consumption in round numbers at nine millions of dollars, we have the very low average of six dollars per capita per annum. This is by no means prodigal, and it even looks as if some people didn't keep warm in the winter—in fact, it is a low estimate.

The forest fires are very destructive, and the State sustains losses in this way without any possible return. The amount of woodland so destroyed per annum is 546,102 acres, worth, say, \$357,980. Curious as it may seem, more than one-half of this wholesale destruction is chargeable to the carelessness of land owners, who do not prohibit the wanton wastefulness of timber in the clearing of lands for agricultural purposes. Generally the trees are felled, rolled into heaps and burned. Think of it! One hundred and eighty thousand dollars worth of wood worse than thrown away! More than enough to build a handsome monument to the prodigality of the oft-times impecunious landowner!

Hunters and malicious people are responsible for three-fourths of the rest of this shameful waste. Lightning, locomotives, camp fires and smokers are accountable for the rest. Now take into consideration the wastefulness occasioned by the extravagant methods in use in the manufacture of naval stores, and you have an aggregation of losses which must soon render the forest supplies inadequate for the necessities of the people. This must be manifest to all. The fact that we have an ever-growing population—and with it the consequent and necessarily increasing demands on the forestry—is a sufficient reason for husbanding such valuable resources. Be assured, every tree will be in demand!

THE BALTIMORE MANUFACTURERS' RECORD is almost a real necessity to every live Southern manufacturer and would prove of value to every intelligent Southern man. It is devoted exclusively to the industrial development of the South, but is the most complete and reliable paper of the kind published anywhere. It is the only technical journal of which we know that, without being what is known by the stereotyped adjective "popular," is of real interest to the general reader.—Shelby, N. C., *New Era*.

Some Tariff Sentiments.

If Southern iron is able to drive Scotch iron out of the American market now, under the enormous tariff tax on machinery, which reduces the profits of the capitalist, and the still more oppressive tariff tax on the necessities of life, which reduces the profits of the laborer, what might this great industry accomplish if such burdens were removed? How can they be anything else than a clog upon the iron industries of the South, which from their superior natural facilities, are now able to compete successfully with the products of both the Pennsylvania and the Scotch furnaces?—Nashville American.

To the above the Mobile Register replies: All this is very illogical. Southern iron could not drive foreign irons out of the American market if our iron was not protected by a reasonable and favorable duty. If the views of the American were carried out not a pound of Tennessee or Alabama iron would find a market in our coast States. It would be cheaper to bring iron to Mobile from Wales than to bring it from Birmingham. The iron masters of the East understand this, and hence they are clamorous for free trade in raw material while preserving high protection on manufactured goods. The American is playing directly into the hands of the manufacturer. It would bring the land owner, the ore digger, the smelter, the owners of the furnace down to starvation prices, while it leaves the manufacturer of stoves, ploughs, axes, rails, locomotives, machinery of all description protected at every point.

The theory of the Register as respects iron is the same as respects wool. If the manufacturer is to be protected, and we know that it is absolutely necessary to protect him in the present condition of the Treasury and the present status of the American laborer, it is just that the raw material should also be protected. Under recent legislation the duty on wool was reduced to such a point as to render wool growing unprofitable in this country tributary to Mobile. It has cost the farmers of the wire grass country more in one year than the highest protective tariff would cost them in ten years. And who has been benefited by the reduction? No one but the wool manufacturer, who, while inducing the Democracy to forsake our home shepherds, took precious good care that there should be no reduction in the duty upon woolen goods. Now an effort is being made to inveigle us into an abandonment of the duty upon iron. At the same time there is no call for a reduction of duty on iron goods. This one-sided policy will not do. The tariff must be brought to a revenue basis, but so adjusted as to afford the largest protection to the largest number and the least protection where it is least needed.

"Returned Emigrants."

Our correspondent at Marion, Va., sends us the following extract from the Marion Democrat: "A gentleman formerly from Alleghany county, N. C., passed through our town this week, on his return from the great West. He left this place about the first of April with a large party of emigrants, many of whom are disappointed in the advantages of the western country. He says that the country is vastly overrated by railroad agents and land speculators. Laborers are numerous and work hard to get. Wheat, the principal source of income to the farmers, is abundant and dull sale at 50 to 55 cents per bushel, whilst the other necessities of life are very dear, and to be had only for cash. The experience of many proves that there is little advantage gained by going West from a country of so varied resources as the mountainous section of Virginia and North Carolina. The same energy and skill exerted in this country will be equally well rewarded. Close application to a legitimate business, will almost invariably bring reasonable returns."

To the above our correspondent adds that several parties of "returned emigrants" have lately passed through Marion and neighboring towns, on their way back to their old homes in Virginia and North Carolina, having learned by experience that their own country possessed advantages equally as great as the West.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Another canning factory is talked of at Apalachicola, Fla.

It is stated that the Sloss Furnace Co., Birmingham, Ala., are preparing to open a limestone quarry near Trussville, Ala.

C. F. Enslin, Birmingham, Ala., will commence work about June 1 on his \$10,000 bank building.

Geo. C. Kelly and others, of Birmingham, Ala., have organized the Birmingham Patent Rotary Churn Co., capital stock \$50,000, to manufacture patent churns.

O. O. Nelson, president of the Montgomery Oil Works, Montgomery, Ala., previously reported as intending to build a cotton seed oil mill in Mobile, and which it was supposed was the mill that D. H. Caswell & Co., of Nashville, Tenn., had received the contract to build writes us that it is not. Caswell & Co. writes us that they will build a cotton seed oil mill, and as the Montgomery oil Works will also build one, it looks as though Mobile would soon have two new oil mills.

Talladega, Ala., is discussing the building of water-works and a new jail.

ARKANSAS.

Dispatches from Arkansas report that a company of Chicago and New York capitalists have secured a large tract of mineral land in Independence county, and will shortly begin mining.

FLORIDA.

The Jacksonville & Suburban Railroad Co., Jacksonville, Fla., G. B. Griffin, president, has given contract for building a road 1½ miles long.

A sash and door factory and shingle mill are to be established in Auburndale, Fla.

Moyers & Wilson, of Altamonte, Fla., have established a saw mill at Winter Park, Fla.

A company is being organized in Orlando, Fla., to make brick.

Work on the large schoolhouse to be built at Bartow, Fla., will shortly commence.

The Jacksonville & Atlantic Railroad Co., Jacksonville, Fla., have purchased rails for their road and will shortly commence laying them.

The ice factory, previously reported as to be put up at Eustis, Fla., is being built by F. A. Smith.

The Gulf Ice Co., Pensacola, Fla., are about doubling the capacity of their factory.

A saw mill is being built at the new town of Bayard, Fla.

It is stated that Dreka & Co. will build a hotel in DeLand, Fla.

At an election, May 16, at Tampa, Fla., it was decided to build water works on the Holly system.

GEORGIA.

A saw mill has been built near Bangor, Ga. A tinware factory is being built in Atlanta, Ga.

O. M. Stone, Augusta, Ga., desires us to say that the report that he contemplated establishing cotton gin works in Athens, Ga., is entirely wrong.

W. O. Connor, Cave Spring, Ga., will receive bids till June 10 for the erection of a 3-story school building for the Georgia Institution for the Deaf and Dumb.

Thomas Leigh, Newnan, Ga., whose saw mill was lately burned will rebuild at once.

The Messrs. Slade, Lifsey's Store, Ga., will build a grist mill.

Work on the new depot for the East Tenn., Va. & Ga. railroad at Atlanta, has been commenced.

O. G. Robinson, Dawson, Ga., will shortly commence work on his new hotel.

J. M. Veach & Co., Adairsville, Ga., are putting some new machinery into their flour mill.

KENTUCKY.

It is reported that an English company have purchased cannel coal property near Cloverport, Ky., which they will develop.

Elias Block & Sons, Prestonville, Ky., have increased the machinery in their distillery.

W. L. Pence, Frankfort, Ky., whose saw mill was reported last week as burned, loss \$10,000, will rebuild. Will also erect a planing mill.

The Falls City Silver Mining Co., capital stock \$200,000, has been incorporated in Louisville, Ky.

Machinery is being erected at Uniontown, Ky., for making brick and tiles.

J. A. Kelly & Co., Henderson, Ky., have purchased and are putting into position machinery for making brick.

It is reported that Martin Garrity, of Cincinnati, O., will establish a carriage factory at Warsaw, Ky.

LOUISIANA.

An effort is being made to organize a \$50,000 company in New Orleans, to develop iron ore property of W. P. Kimball, in Claiborne Parish, La., and possibly to erect a charcoal furnace.

The Messrs. Duty, Monroe, La., have asked for permit to build an iron covered machine shop.

MARYLAND.

There is some talk of a new glass factory being started in Baltimore by the glass blowers, on the co-operative plan. About \$12,000 capital is expected. John Long, city councilman, can give particulars.

Elkton, Md., continues to discuss the building of water works. Thomas Drennen, Elkton, can give particulars.

MISSISSIPPI.

Some weeks ago we reported the probability of a cotton compress being built at Greenville, Miss. A company has now been chartered to build the compress, and a large part of the stock has been subscribed. The Bank of Greenville, Greenville, Miss., can give particulars.

It is reported that a canning factory is to be established in Mississippi City, Miss.

Thos. H. Dunn, of Columbus, Miss., is now working iron ore mines at Davisville, Ala.

It is stated that a company is peing organized in Columbus, Miss., to build a \$50,000 cotton compress.

There is some talk of the factory of the Vicksburg Manufacturing Co., Vicksburg, Miss., which is to be sold at auction, being purchased for a cotton-seed oil mill.

NORTH CAROLINA.

Thos. M. Holt, Haw River, N. C., is gathering lumber and making brick with a view of building a cotton mill in which to put about 224 looms, as soon as there is an improvement in the cotton goods trade. In our last issue it was stated that there was a report that Mr. Holt would build a cotton mill.

Gaylord, Davison & Spring Co., Leechville, N. C., previously reported as intending to build a saw mill, have about completed a saw and shingle mill. Capacity saw mill 20 to 25 M feet per day.

W. N. Blackley & J. W. Harris, Wilton, N. C., reported as purchasing machinery for a saw mill, will also add grist mill machinery.

M. A. Smith, Palo Alto, N. C., will rebuild saw and grist mill and gin, previously reported as burned; loss \$6,000.

N. Atkinson and others, Asheville, N. C., will probably develop a gold mine in Henderson county.

W. D. Lathrop & Co., Elizabeth City, N. C., are preparing to enlarge their cotton seed oil mill, put in more machinery, &c.

It is thought probable that N. F. Dexter, will establish reduction works at Charlotte, N. C.

R. B. Vance, C. M. McLeod & M. J. Fagg have been granted privilege of building a street railroad in Asheville, N. C.

Moore & Brady, Newberne, N. C., have commenced on the foundation of their canning factory, previously reported as to be built.

SOUTH CAROLINA.

Myers & Cole, Laurens, S. C., are building a foundry and machine shop.

TENNESSEE.

Isaac L. McKee, of Memphis, Tenn., has received contract to grade 10 miles of road for the I. A. & T. R. R. Co.

R. E. Haynes has purchased the Harpeth River Mills at Franklin, Tenn., for \$6,000.

The Cedar Bluff Manufacturing & Railroad Co., of Knoxville, Tenn., has been incorporated.

L. A. Read, Chattanooga, Tenn., has completed his grist mill previously reported.

E. S. Rowan, McMinnville, Tenn., will probably build a saw mill on the site of the one recently burned.

TEXAS.

W. C. Cloyé, of Louisiana, will probably build a sash and door factory in Longview, Texas.

A company has been formed to open and develop a vein of coal on the property of Mr. Slover, near Bowie, Texas.

R. S. Minger, of Mexia, Texas, contemplates establishing a factory at Dallas for manufacturing cotton presses, &c.

The Lancaster New Roller Milling Co. has been organized at Lancaster, Texas, with H. I. Moffett, president; E. Beckley, vice-president; Paul Henry, treasurer, and Dodd Rollins, manager. Capital stock \$30,000.

Myers & Eakel, Fort Worth, Texas, whose planing mill was reported last week as burned, (loss \$12,000,) will be succeeded by B. H. Myers, who will rebuild at once.

J. H. Aiken, of Adrian, Michigan, is reported as contemplating establishing bronze works in Dallas, Texas.

The Dallas & Northwestern Railroad Co. has been organized at Dallas, Texas, with T. L. Marsalis president, to build a road 160 miles long. It is thought that construction will be commenced very shortly. Capital stock \$2,500,000.

The Denison Cotton Company, Denison, Texas, the organization of which was reported last week, will expend about \$25,000 in machinery for ginning cotton and manufacturing cotton-seed oil. Capital stock \$50,000.

Geo. Anderson & Son, Cleburne, Texas, previously reported as intending to build a flour mill, have, we are informed, purchased machinery for a 75 or 100-barrel flour mill.

According to report, John Hash, near Lancaster, Texas, will develop a coal mine.

Knight, Varbrough & Kiker, Burns, Texas, are erecting a mill and gin.

J. H. Brown, Fort Worth, will erect a large warehouse.

VIRGINIA.

S. Busnitz & Co. will shortly open a large tobacco factory at 1100 and 1102 Cary street, Richmond, Va.

Bartlett Bolling, Keswick, Albermarle county, Va., can give information about the proposed flour mill, previously reported as likely to be built at Shadwell, Va., near Charlottesville.

Edward Allen, Blacksburg, Va., will probably establish a broom factory.

Extensive pressed brick works are being established at the foot of Washington street, Alexandria, Va., by Northern capitalists.

WEST VIRGINIA.

The Wolf Creek Tram Road Co., with office at Rowlesburg, W. Va., has been incorporated to operate in Pocahontas county.

The Kanawha Railroad Co., of West Virginia, are extending their road about one mile in order to open up new coal fields.

BURNED.

The boilers in the cotton mill of the Bibb Manufacturing Co., Macon, Ga., exploded May 18, damaging machinery and engine house; loss reported by one dispatch \$25,000, and by others \$10,000.

Saw mill of Newsome & Reddick, Williston, Fla.

Saw mill of Tilghman, Wright & Bro., Fowling Creek, Md.

The saw mill of Dr. J. T. Hester, Salem, Ga., has been damaged by boiler explosion.

Elmore saw mill, near Magnolia, Ark.

Saw mill of J. L. Murray, St. Georges, S. C. Loss \$2,000.

Veneering works of Franklin & Kinsey; loss about \$16,500 on machinery and stock; Rock City Woolen Mills; loss \$12,000; and the Jackson mill,—all of Nashville, Tenn.

Mill and gin of D. B. & A. H. Elam, Covington, Tenn.

Henry Dunkart's saw mill near Olive Hill, Ky., has been badly damaged by boiler explosion.

Opening a Big Coal Mine.

BROKEN ARROW,

ST. CLAIR CO., ALA., May 16, 1885.

Editor Manufacturers' Record:

The Coosa Coal & Coke Company, of Broken Arrow, Ala., commenced work on their new slope on the 10th, on the East & West Railroad lands, situated at Ragland, St. Clair Co., Ala. The platform will be 41 feet in height, to give good screening facility, and one hundred and fifty feet long. The Lidgerwood engine, 14x28, is to do the hoisting. Boilers from Rome Foundry & Machine Works, Rome, Ga., and Knowles Duplex Pumps, through Linn Iron Works, Birmingham, Ala. C. E. James & Co., of Chattanooga, also Hardy & Co., of Rome, Ga., have been favored with a large order for general supplies of the new mine. The work is being pushed in every department, so that coal can be put on the market by June 15. The capacity is to be 500 tons in ten hours, when completed.

LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

New Enterprises at Union Depot, Tennessee.

UNION DEPOT, TENN., May 15, 1885.

Editor Manufacturers' Record:

A large tract of land above this place, on Holston river, has been purchased by a Northern company, who will at an early day put up saw mills at this place, they having bought considerable property here on which they intend to locate their works. Other manufacturing enterprises are spoken of in connection with saw mills, one of which is an extensive furniture factory. On the land spoken of above large deposits of zinc have been found, and the ore tested, and it has proven to be of a most excellent quality, and in such quantities as will justify the working of it, which will be done in connection with their lumber business, and probably smelting works erected here. This place offers most excellent advantages for any kind of manufacturing enterprise, and what is now a dull town of 500 inhabitants we think will, in the course of a few years be a considerable manufacturing parish. Am not able at present to give address of parties, but will in a few days. A. A. Hobson, Bristol, Tennessee, is their agent.

C. O. FRY, Mayor.

FRANKFORT, KY., May 15, 1885.

Editor Manufacturers' Record:

I intend to rebuild my saw mill this summer. I am undecided as to whether I will put in a band mill or circular. If circular, will have capacity of 35,000 feet per day. Will also erect a planing mill same size as saw mill. My lot is in Belle Point, across the river from Frankfort. I do not know what it will cost to build them. My mill that burned was valued at \$10,000; insured for \$5,700.

W. L. PENCE.

A New Ice Factory.

EUSTIS, FLA., May 12, 1885.

Editor Manufacturers' Record:

Mr. F. A. Smith has ordered an ice machine to be erected at Eustis; it is expected to be in operation by the 1st of July; capacity 7 tons per day; cost of plant \$10,000. Wood-Bailey Ice Machine Company.

T. J. TITCOMB.

A Cotton Mill to be Built.

HAW RIVER, N. C., May 14, 1885.

Editor Manufacturers' Record:

I propose building a weave mill for 224 looms with quillers, beamers, and presses necessary. I am now making brick for the purpose, getting such lumber as ought to be seasoned, and doing other work at my leisure. I will not put the building up this year unless business revives. I merely want to be in a position that if it ever does revive I can get it quickly in operation. THOS. M. HOLT.

COLUMBUS, GA., May 15, 1885.

Editor Manufacturers' Record:

We have contracted with and are now building for the Leesburg Ice Co., Leesburg, Fla., a five ton ice machine.

H. D. STRATTON & CO.

NEWMAN, GA., May 14, 1885.

Editor Manufacturers' Record:

Mr. Thomas Leigh lost his saw mill by fire a few days ago, but will immediately rebuild.

R. N. COLE.

FORT WORTH, TEXAS, May 11, 1885.

Editor Manufacturers' Record:

Mr. B. H. Myers will succeed Myers & Eakel and rebuild at once; the engine and boilers and the most expensive parts of most of our machinery can be used with repairs. Mr. Eakel will select a location in Georgia or elsewhere and build up another business. All claims against us will be paid in full at once.

MYERS & EAKEL.

A Texas Limestone Quarry.

BLUFFTON, TEX., May 6, 1885.

Editor Manufacturers' Record:

I am developing a quarry of hydraulic limestone or cement rock which promises to be a paying enterprise, and I think will justify me in establishing a manufactory for the production of cement. Cannot say positively when this will be done or how extensive it will be to commence with, but think it will probably be inside of the present year. In the meantime shall quarry and ship the rock to parties already engaged in manufacturing cement and water lime.

Prof. A. R. Roessler, United States geologist, now engaged in examining the minerals of this section of the State, writes of this, under date of April 17:

"I have examined the piece of rock collected on Weil's headright survey, west of Tow Valley, Llano county, and find it to be hydraulic limestone composed of carbonate of lime, silica, silicate of alumina, carbonate of magnesia and oxide of iron. By mixing it with gypsum (sulphate of lime) all in powder, and then roasting it in a puddling furnace, it will make an excellent cement. The remaining mass is then to be ground again and re-roasted, and, after mixing it with 2 or 3 parts of carbonate of baryta and some very pure sand, it will make a hydraulic water lime equal to Portland cement. When formed into mortar it hardens in water, and is used in cementing under water."

The above is an exact copy of what Mr. R. says regarding the rock. He is a geologist of wide reputation, and is probably known to you personally or by reputation.

F. STILES.

MOUSE CREEK, TENN., May 16, 1885.

Editor Manufacturers' Record:

This county is well supplied with running water, and nearly every little water power is utilized in some way. Years ago a novel hominy beater was constructed on a small stream near here. It consisted of a mortar and a tilting beam, with a pestle attached to one end, and the other was scooped out like a tray. As the water poured into the tray the beam would tilt the pestle, and as the water was discharged or spilt, the pestle would fall. In this way a regular beating was kept up, making about enough corn hominy for the neighborhood. It may interest some of your readers to know that in most of our tanneries the water used is raised by a wooden water wheel, having usually about two feet fall. Small caps are fastened to the side of the wheel, which dip and discharge the water at proper points. This simple device rarely ever gets out of use.

I. N. SCHULTZ.

NASHVILLE, TENN., May 16, 1885.

Editor Manufacturers' Record:

The Southern Tanning Co. is a regularly chartered stock company, organized for the purpose of tanning a specialty raw hides, lace and picker leather; shall use about \$10,000 and increase our works to double that amount in a short time. The officers are myself as president and general manager; Mr. C. R. Handly, secretary and treasurer. Mr. J. T. Coupe, of South Attleboro, Mass., is our boss tanner. I am a Northern man from Janesville, Wis.

W. L. CONCH.

DALLAS, TEX., May 16, 1885.

Editor Manufacturers' Record:

I am building a corn mill and elevator. Capacity of mill about 200 barrels per day.

S. P. YOUNG.

WILTON, N. C., May 14, 1885.

Editor Manufacturers' Record:

We are just completing our saw mill and will build a grist mill at once; have not purchased it yet.

W. A. BLACKLEY & J. W. HARRIS.

A New Cotton-Seed Oil Mill.

DENISON, TEXAS, May 16, 1885.

Editor Manufacturers' Record:

The Denison Cotton Company, the capital stock of which is \$50,000, one-half of which will be invested in plant, will be ready to run by September 1st, 1885. Object: to buy cotton from farmers in the seed, gin, bale and sell the lint, and express the oil from the seed. Capacity of mill one hundred bales per day, worth \$50 each; 50 tons of seed, worth \$10 per ton. I am the manager of the Denison Cotton Company, and shall be pleased to answer all proper inquiries at any time.

C. H. MERRY.

LAURENS, S. C., May 18, 1885.

Editor Manufacturers' Record:

We have started a foundry and machine shop at this place as a repair shop, but expect to commence the manufacture of cotton presses soon. The shop is not completed yet, but will be in a few days.

MYERS & COLE.

A Large Tobacco Factory.

RICHMOND, VA., May 19, 1885.

Editor Manufacturers' Record:

We shall start the manufacture of cigarettes and smoking tobacco in a large new brick building, Nos. 1100 and 1102 E. Cary street, built by E. V. Cannon, between 1st and 10th June.

S. BUSNITZ & CO.

Saw and Grist Mill.

PALO ALTO, N. C., May 13, 1885.

Editor Manufacturers' Record:

I intend to rebuild again and will be ready to run in sixty days; work being done by contract.

M. A. SMITH.

REDDING, ALA., May 18, 1885.

Editor Manufacturers' Record:

We have for the past year been in the mining business, but on the 12th of this month we changed our business firm by organizing the Morris Mining Co.

MORRIS & BRO.

Some Points on Iron Making in Alabama.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., May 16, 1885.

The big hotel scheme that has been on foot here for the past two years has at last assumed some shape. A hotel company will be organized by the Elyton Land Company, with a capital stock of \$200,000. The Elyton Land Company will take stock to the amount of \$150,000, and all they ask of our citizens is to take the remainder, \$50,000, in first mortgage bonds bearing 4 per cent. interest.

The Citico furnace, Chattanooga, has recently purchased 2,000 tons of ore from Birmingham iron men which will be used on trial. If the test proves satisfactory the company will no doubt contract for 3 car loads of ore every day for a long term. They are negotiating with Morris Bros., at Redding, Ala., a distance of about 12 miles from Birmingham, who operate the Morris ore mines. The freight on iron ore to Chattanooga has formerly been \$1.25 per ton. When several contracts were made by Chattanooga with Birmingham for iron ore, the Louisville & Nashville and Memphis & Charleston Railroads entered the fight to secure the shipments. The Queen & Crescent finally reduced the rate to Chattanooga to 80 cents per ton and secured the business.

A gentleman speaking to your correspondent a few days ago regarding the price of iron ore as paid by furnaces who buy, said: "I made a proposition to an iron man here to furnish 100 tons of ore per day at \$1.50 per ton. He gave the proposition no consideration at all, but intimated he would probably pay \$1 or \$1.25 per ton. Iron ore at this time was worth from \$3.75 to \$4.50 in the Chicago market."

The majority of iron makers in this district own their ore mines and lands, and the ore is shipped over the Birmingham Mineral Railroad, which is also owned by them. The Pratt Coal & Iron Company furnishes one furnace here with about 30 cars of coal per day, the price of coal being governed by the price of iron. Manufacturers are endeavoring to possess everything necessary to iron making, and have been trying for some time to have their new water-works incorporated, so as to avoid using the water of another company. They will eventually own their coal mines. When this is done they will have everything at hand without purchasing from outside parties. With the present advantages they say they are making no money. Why do they run? With advantages they have now, if they can afford to run the entire year, when they execute the plans heretofore mentioned, if they do not make money it will surely be the result of bad management, and not because they are not in a condition to do it.

The Woodward Iron Company, who have their furnace about 12 miles from Birmingham, is, it is said, the best located furnace in the whole United States for making iron cheap. They have limestone, fuel, ore and everything else used in iron making at their door. An iron man remarked the other day: "There is no money in iron at a cost of \$12 per ton, and there is no furnace making iron for less than that amount anywhere in this district. The Woodward furnace, at Wheeling, Ala., may possibly, but not probably, make it at a fraction less, and if they can't do it, no furnace in the State of Alabama can do it. They are within arms-length of everything that goes in their furnace."

Your correspondent then asked: What does ore cost manufacturers here?

"About \$1.50 per ton; sometimes less; and then the freight on iron to the markets is from \$4 to \$4.50, and so on."

And you don't think iron can be made here for \$9 and \$10 per ton?

"No, sir; it cannot; when people reckon the cost of making iron they simply figure on the coal, coke, ore, labor, when there are a great many incidental expenses that persons not in the business know nothing about."

Iron can be made at Gadsden, Ala., a town of 3,500 population, about 70 miles north of here, on the Coosa river, at \$9 per ton, and they are not afraid to tell the world. It can be made as cheap in Birmingham as Gadsden and is made as cheap. No clear-headed man will examine this mineral section, investigate the situation, and believe it costs \$12 per ton to make iron here. J. C. A.

THE Hulings Lumber Company, composed of parties from the Alleghany valley, have purchased about 30,000 acres of timber land in the Cheat river country, and have erected a mill on the Monongahela river, near Greensboro, with a capacity for sawing 40,000 feet of lumber in a day. This is the pioneer establishment in what is considered one of the finest lumbering regions east of the Mississippi river.—Grafton, W. Va., Eagle.

THE Sea Island News, of Beaufort, S. C., has entered upon its seventh volume. The News is working earnestly for the development of Beaufort, but, judging by its own statements, the business men of that town fail to appreciate the importance of advertising the resources and advantages of Beaufort. The natural advantages of a town will avail but little if its inhabitants lack the enterprise to let the world know of them.

THE MANUFACTURERS' RECORD, of Baltimore, Md., is a weekly paper whose efforts are directed to the Southern States. It sets forth the wonderful resources of the South, and the facilities the Southern States possess for almost every branch of manufacture. We consider it the best authority on all Southern industry.—Enterprise, Beaumont, Texas.

A Florida Coal Mine.

Those who imagine that Florida consists of white sand, insects, malaria, land agents, king snakes and oranges alone are very badly mistaken. Let me pick a few of the scales from their eyes and tell of something that may some day give the State more than four electoral votes and render returning boards entirely unnecessary. To the surprise of many, perhaps, I will state that Florida is rich in minerals, and the time will surely come—nay, it is almost here—when the orange grove will be a secondary consideration, and myriads of red-jawed smoking furnaces will prison the balmy, life-giving air. Outcroppings of gold have been found in the counties of Alachua and Wakulla, lead in Hamilton and Taylor, phosphates in Suwanee and Columbia, iron in Alachua and Gadsden, and in other counties other minerals await the investigation of the geologist and the speculator.

The late Col. A. Hardee, once a prominent citizen of Duval county, devoted to the interests of the State and his fellow man, told me some years ago that in the course of his travels and experience he had discovered an immense vein of copper ore, which he estimated at nine miles in length. Only press of other business and lack of encouragement debarred him from its thorough development. That there are large deposits of coal in the State is an established fact as will be vouched for by old citizens in this locality, who have seen it in use and were acquainted with its pioneer discoverer, and there is now a bonanza awaiting the daring and energetic prospector who can locate the lost coal mine that forty years ago excited the languid curiosity of the old planting community, but whose exact location remained to them a *terra incognita* unto the end.

It yet remains a seemingly impenetrable mystery, defiant of solution, but within the grasp of some capitalist of nerve willing to risk his ducats on the chance of turning up luck. A fortune lies idle—who will claim it? A throne is ready for the coal king who will have prescience enough to step into his kingdom. Let me tell the story, and let him who will take advantage of it. The coal is here, near to the banks of a navigable stream, and though it may read like a romance, this is an o'er true tale.

Forty years ago, at a little place on the Suwanee river, which now goes by the euphonic name of Columbus, there lived and flourished one Burgess, an eccentric old Frenchman. He was a blacksmith by profession, and in his limited sphere did a great deal of good. In a peculiarly agricultural region his occupation made him a person of more than ordinary importance. A skilled artisan, his services were always in demand, and his humble shop was the center of a wilderness of weeds. Here he repaired the wagons of the honest farmers, renovated the dilapidated skillets of the hospitable housewives, shod the horses of future Southern statesmen and soldiers, gave new life to disabled hoes and ploughs, and occasionally put new hair springs in the watches of such negroes as happened to be quasi arbiters of time. Short and squatty of person, and reticent of speech, he won the esteem and respect of a clientele that preferred to do all the talking, and he soon laid up a goodly supply of treasure. The blacksmith used genuine bituminous coal. In a coalless country, and on the borders at that, how he got it was an absorbing mystery, and a mystery it has remained to this day. Many were the efforts made to discover his secret, but they all failed. Watch after watch was placed on his movements, but they all came to naught. Every little while the shop would be locked up and the owner would mysteriously disappear. As he always seemed to have a supply of coal on hand, it was impossible for the amateur detectives of that locality to pipe him off. His means enabled him to have a flatboat of his own and a deaf and dumb negro he had purchased from some

planter, with himself, constituted the crew. Secretly, at midnight, dark and gloomy as the fabled shades of Erebus or the editorials of the Cincinnati Commercial, they would loosen their boat from its fastenings and quietly drop down the river. In about two weeks they would return with two or three months' supply of the concentrated soot. The doors of the smithy would spring open, the fires would blaze and crackle, and at the forge would be old Burgess, but neither from him nor his grinning helper could a word be gotten as to their journey.

Growing rich and feeling the burden of old age creeping on him apace, old Burgess sold out his business and removed to Cedar Keys, where he died in March, 1861. On his death bed he confided to his only relative the secret that had made him wealthy, and disclosed the locality of his treasure.

Besides being a skilful blacksmith, the old man was a mighty hunter, and always kept his larder supplied with the best the forest afforded. Once, having started with a large party on a flatboat bound for some point where an important meeting was to be held, he was led to a discovery which made his fortune. The boat struck a snag on the trip, and became so disabled that it was determined to haul it to the shore for necessary repairs. As these would necessitate a day's delay, Burgess took his rifle, and, with the remark that he would give the party a turkey supper, strode into the wilderness. Lured by the incessant calling of amorous gobblers, he tramped and tramped until many miles was left behind him. The sounds grew nearer, and, cautiously creeping up, he saw in a little glade near the river two splendid gobblers engaged in warfare. By a lucky shot he killed both, and was running to the spot to claim his prize when he stopped as suddenly as though asked to take a drink. From an adjacent thicket a huge bear, red of eye and opulent of teeth and claws, came charging furiously at him. There was no time to retreat, and the only haven in sight was a somewhat indisposed sapling that hung despondingly over the river. To drop his gun and climb that was the work of a moment, and a mighty short moment at that. The bear, baffled in its efforts to tear up the tree by the roots, kept him a prisoner for an hour or so, and then disappeared. In trying to descend from the tree Burgess made a misstep and went tumbling through the air to the river below. About half way down he struck a ledge of crumbling rock, and was followed to the water by a shower of fragments. Only slightly bruised and an expert swimmer, he soon gained the shore, and to his utter astonishment saw that the dislodged stones were coal. He located the spot, and ever afterward drew from it as occasion required. His nephew had just about organized an exploring party when the civil war broke out. Enlisting in one of the Florida regiments, he was killed in one of the first battles of the war, and the secret of the coal mine perished with him.

As near as I can find out, the deposit of coal is located on the Santa Fe River, some five or six miles below its junction with the Suwanee. There are prominent gentlemen living in this country who remember Burgess very well and can testify to the truth of this screed.—Hamilton Jay in The Sun.

A NEW railroad enterprise is in course of development in Tennessee. The Cumberland Railroad Company has registered its charter, with Colonel E. W. Cole, of Nashville, as president. The company owns and is securing large coal interests in Cumberland and adjoining counties, and is devising means to have them developed. The project is to build a road from the coal mines near Carthage to the nearest and most accessible point on the Cumberland River, so as to get the benefit of river transportation to points below, and also to extend the Tennessee & Pacific from Lebanon to that point. The company expects to establish large coking works, and, putting a fleet of barges from this point, to supply the demand below, as Pittsburg is supplied by barges down the Monongahela.—Ex.

Georgia Gold Mines.

The gold mines around Dahlonega, Ga., are, according to the Signal, almost all at work. "The Barlow mine has a good water supply. The Chicago and Georgia is being overhauled, and the mill will be started up in a short time. The Columbia is running ten stamps. The Gordon is running a twenty stamp force on half time. The Ralston mill is running night and day. In the Bast mine work was resumed a few days ago and the mill started Monday morning last.

Mr. Perien has been overhauling and making some needed improvements at this mine. They have a good supply of wood and a steady summer's run is anticipated, there being plenty of ore and of an average grade. In the Findley, work was resumed Monday last. This property has been leased by Mr. King, and he hopes to start the mill at an early day. Mr. Marion Moose is to take charge of the mine. In the Lockhart work continues and the mine is looking well. Mr. John Reid, the superintendent, is off for a few days, having gone to Gainesville. Work continues at the Garnett mine, but as to the yields we are not informed. The Ivy mill is now kept on full time and the plates are showing up well. The cut is in good shape and shows up plenty of pay material; in fact they are taking out better ore than ever. Some fine specimens are shown by Mr. S. W. Gaydon. He had been taking out some of the best ore he ever saw. This mine, generally speaking, is in better shape than any in the county. Mr. Perien deserves much credit for his untiring and energetic management of the Ivy and Bast mines. He is a most attentive as well as practical superintendent."

THE astonishing success of the New York World, under its present ownership, has been one of the wonders of the day. For years the World was a property of uncertain value, its management marked by "spurts" of enterprise that seemed to exhaust themselves before being carried far enough to place the paper on a substantial basis. A few years ago it was bought by Mr. Joseph Pulitzer, of St. Louis, and at once there was breathed into it the breath of life. The wisecracks predicted that the attempt to run a paper in New York on "wild Western" methods would meet with failure. They have been disappointed. The paper took at once, and both in circulation and advertising patronage it has probably done better than even the best hopes of the publisher led him to expect. Its daily circulation now far exceeds 100,000, sometimes going beyond 150,000, and is increasing every week. It is a live, active, vigorous journal, and, considered in all its aspects, is one of the best daily papers in America. Its weekly edition is a splendid compendium of news and family reading.

A GENTLEMAN just returned from Pennsylvania brings the information that Sam Thomas is letting out contracts and making other necessary arrangements for the erection of his furnaces near this city. The contingency upon which Mr. Thomas has been waiting has been settled. A company of Eastern capitalists have agreed to put in \$400,000 cash against his mineral lands valued at the same amount. The plant will be located on the Hawkins farm. These furnaces, together with one to be built by the Mary Pratt, and two by the Pratt Co., will nearly double the iron-making capacity of this section.—Chronicle, Birmingham, Ala.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

Literary Notices.

UNABRIDGED encyclopædias there are without end, but it is for Cassell & Company to publish the only condensed, or as they call it "Concise Cyclopaedia." This is a volume of 1340 large octavo pages, into which is squeezed with intelligent compression, the juice of innumerable volumes. It is the first attempt that has been made to make such a book, and it has been wholly successful. Nearly twelve thousand articles are treated of mythological, historical, biographical, geographical, topographical, scientific, and technical subjects. William Heaton, the editor, has been ably assisted, by a corps of specialists. There are numerous illustrations scattered throughout the book.

THE Country Merchant has changed its name to the American Merchant, a better and broader title. Its May issue consists of 52 pages, a large part of it being devoted to a history of the rise and progress of Chicago, illustrated by a splendid full page cut of the magnificent new building of the Chicago Board of Trade. The American Merchant is published in New York with a branch office in Chicago.

THE American Artisan, of Chicago, has issued a valuable "table showing the cost of tin per sheet, number of sheets of tin in each article, the number for a day's work, the cost of material, including tin, wire, solder, trimmings, etc., with tin plate at any price per box, the cost of tin per sheet at any price per box, the cost of making, with wages at any price per day, the cost of making by the dozen, also total cost by the dozen." This table is printed on card board, so that by hanging it against the wall it will always be ready for reference. The price is \$1.00.

A CATALOGUE of hardware specialties, made by the American Machine Co., Philadelphia, has just been issued by that company. It illustrates and describes their well known goods, such as Fluting Machines, Ice Cream Freezers, Clothes Wringers, Mrs. Pott's Sad Irons, Perfection Scales, &c. Particular attention is called to two new lines of goods, the American Tobacco Shave and Perfection Scales, and to the change in the list prices of Original Knox Fluters and American Machine Co. Wringer. A special Ice Cream Freezer catalogue is also issued by the same company. Copies can be had upon application to the company.

THE Backus Water Motor Co., Newark, N. J., in their new catalogue, illustrate and describe their motors and the many uses to which they can be put very advantageously. These motors can be used to furnish power for all kinds of machinery from one-eighth to ten horse-power.

THE sixth annual catalogue of the Milburn Gin & Machine Co., of Memphis, Tenn., is an interesting pamphlet of 48 pages, illustrating and describing the various kinds of machinery made by this company, which by the way, is a very extensive concern. Their works are of immense size, only lately completely rebuilt and furnished with the most improved machinery to be had in America and Europe. They are manufacturers of the Milburn gin widely and favorably known throughout the South, engines, boilers and other machinery. Their new catalogue will be sent free upon application to John D. Milburn, president, Memphis, Tenn.

Home and Farm,—a weekly agricultural, live stock, home and industrial journal,—has lately been established at Harrisonburg, Va. It is an 8-page paper, with subscription price only \$1.00 a year, and should meet with liberal encouragement from Virginia. Papers of this character, that, ignoring politics, devote their attention entirely to the material interests of the South, are doing great good and deserve a hearty support.

What the Expositon Has Done for New South Carolina.

Major L. A. Ransom, who has represented South Carolina at the New Orleans Exposition, has given the Charleston News and Courier a statement of the benefits already seen as a result of the splendid display made by South Carolina at New Orleans. Among other things he says: "Some few weeks since the Japanese commissioner called at the South Carolina department for information regarding the

PHOSPHATE ROCK

of the State. He said that he was a member of the Japanese bureau of industry and, under a commission from that bureau, had been for two years in London investigating the manufacture and use of commercial manures. In his investigation he had found allusions to the South Carolina phosphate deposits, but the information he had been able to obtain was very meagre. He examined the rock on exhibition in the State department and the chemicals used in its manufacture. He found that fish scrap was one of the ingredients used for ammoniating purposes, and he at once expressed the opinion that as there are millions of tons of it in Japan it might be transported to South Carolina and exchanged for phosphate rock, and if such an arrangement could be made it would open a splendid market for the rock and develop an industry of considerable magnitude. He returned to his own exhibit and brought the commission two samples of the scrap alluded to. This was sent to Prof. Chazal, the chemist of the department of agriculture, who analyzed it and reported that its commercial value was about 25 per cent. higher than the scrap now used by the manufacturers of fertilizers. This was communicated to the Japanese commissioner and he expressed the belief that while this chemical test showed the superiority of the Japanese article, that it could be laid down in Charleston at a much lower price than the manufacturers now pay. He subsequently informed me that he had communicated these facts to his government, and hoped to have all the information necessary to enable him to decide whether or not it is practicable to establish the business he desires. He says he will visit Charleston at the close of the Exposition, if not sooner, and investigate the subject fully. Allusion to the matter was made in an editorial in one of the local papers and met the eye of a German who was visiting the Exposition. He was so interested in it that he called at the South Carolina department to examine the phosphate exhibit. He said he was interested in kainit deposit in Germany, and he saw no reason why a similar arrangement could not be made for the exchange of kainit for phosphate rock. He obtained such information as he desired and promised to call again, or correspond with the manufacturers and miners. A Mississippi planter, who had never used commercial manures, informed me that he would order thirty tons of South Carolina fertilizers this season, and was induced to do so by the exhibit. A gentleman who owns two large orange groves said that himself and many other owners of groves, who had heretofore used Northern fertilizers, would hereafter use nothing but the Carolina products. An owner of one of the largest sugar plantations near New Orleans, said that he used about two hundred tons of fertilizers every season, and nearly all of it was manufactured in the North, but hereafter he thought he would buy largely of the South Carolina manufacturers. The Florida commissioner was presented with a quantity of the South Carolina fertilizer, shipped to New Orleans for distribution, and it was used on his oranges groves, and he reports that the results have been so satisfactory that he is sure many owners of groves in Florida will use it another year. Many farmers from the Western States, who have never used commercial manures of any kind, are anxious to make some experiments with

them, and it is possible that some orders may be received from them, and if the introduction of these fertilizers is satisfactory, it will be followed by a large business. The South Carolina fertilizer exhibit has given such a boom to this industry that manufacturers all over the Union will be benefitted, but, of course, not to the same extent as our own companies.

THE WOOD EXHIBIT

has attracted almost as much attention as the phosphate display. Lumbermen from all sections of the country have visited the Exposition and have been pleased with the exhibits from all the Southern States. In the South Carolina department there are about 140 specimens of native woods, all of merchantable size, and they attract much attention. Inquiries relating to the timber resources of the State have been frequently made, and these investigations will no doubt result in a rapid development of the lumber industry at no distant day. The exhibit of manufactured goods and the maps of the water powers of the State have attracted at-

Frech's Automatic Turret-Head and Lathe Combined.

A new device having many claims to originality and excellence is shown in annexed engravings, which represent Frech's Automatic Turret-Head and Lathe combined. This machine does fully the work of two machines as Monitor or turret lathe and speed lathe, and is very effective and quick in operation. In this device the turret-head

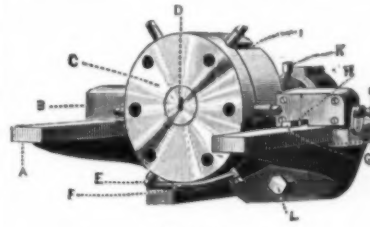


FIGURE 1.

forms an attachment, and consists of frame A, (see fig. 3.) a cross-bar B, the head C, &c. The frame A is fastened on the tail-stock

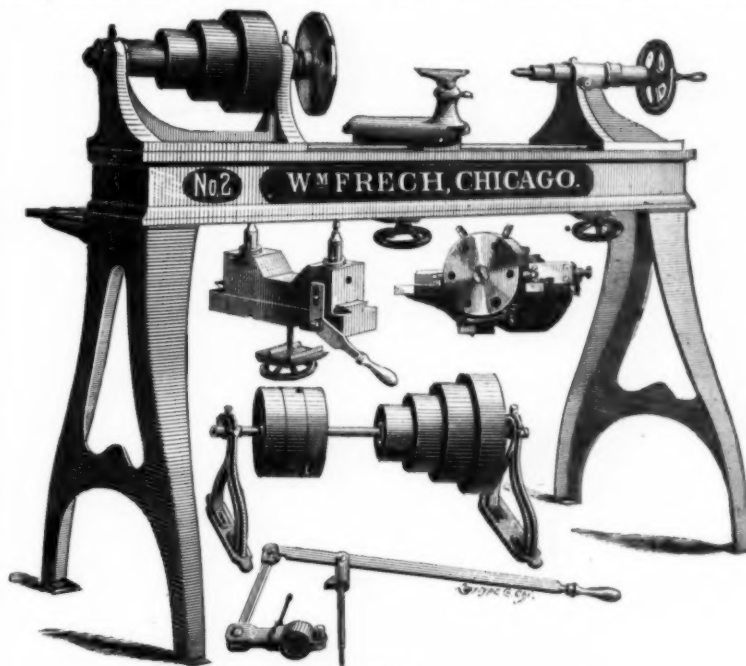


FIGURE 2.

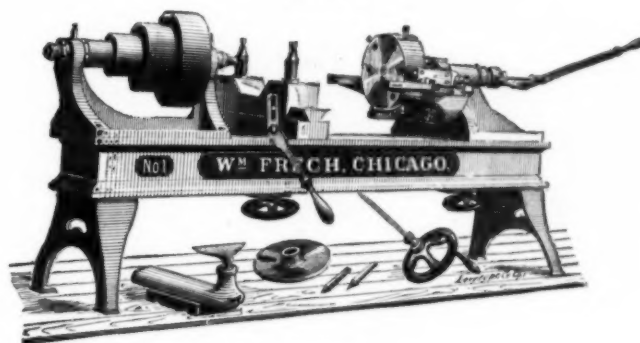


FIGURE 3.

tention to the advantages afforded by the State for factories of every description, and this should result in bringing capital here for investment in such enterprises.

The varied agricultural productions of the State illustrated by the exhibit have given a correct impression regarding our agricultural capabilities, and the interest that has been shown by visitors in this direction convince me that it will be the means of inducing an influx of prosperous small farmers from the Northwestern States and elsewhere to South Carolina. The display of ores and building stones will, I am satisfied, cause the development of our resources in that direction. Our special exhibits, rice, naval stores and fish, have been of immense benefit to the State in showing the variety of our productions and our natural wealth, while the exhibit of birds and animals from the Charleston Museum has not been excelled in the quality of the specimens, even by the splendid displays of the Smithsonian Institute, and have not been equalled by that of any other State.

with one screw, its upper portion being held firmly by the projecting hob. The cross-bar B is attached to the spindle of the tail-stock by means of a set-screw, K, and slides forward and backward on the frame A, being encased on four sides. The head C is bolted on the cross-bar, and revolves on a steel bolt, D. There are 6 holes or ports to receive tools, mills, cutters, drills, &c., which are held firmly by projecting set-screws E, acting at the same time as studs to automatically turn the head. In the rear of these set-screws there are 6 slots, I, 1/4 inch wide and 5-16 inch deep, in which rests the steady-pin H. The pawl F swings on the frame A, and is held and brought back to its proper place by a spring concealed in the frame. H is a small pin attached to the steady-pin, and is pressed back by the pawl G, thus disengaging the steady-pin H'. The small pawl G on the top of the frame will disengage the steady-pin at the moment the set-screws strike the pawl F underneath, thus assuring a swift, easy turn of the head to the

next hole or port. The small pawl operates the steady-pin and the large pawl turns the head, being tapered down or slanting towards the tail-stock. The turret-head is accurately made, and can be detached from the tail-stock simply by taking out one screw and loosening the set-screw on cross-bar. Centers and face-plate can then be attached and used as any ordinary lathe, as shown in fig. 2. The lathes are built in two sizes. No. 1 is a bench lathe, has 4 speeds, runs 1 1/2-inch belt, 15-32-inch hollow spindle, swings 10 inches, and cuts up to 3/8-inch screws; the bed is 2 feet 9 inches long. No. 3 has a 3 1/2-foot bed, 12-inch swing, 4 speeds, runs 1 1/2-inch belt, 19-32-inch hollow spindle, and cuts up to 1/2-inch screws. The countershaft is so constructed that the shifters will be operated by foot, the operator having his two hands free for the work. These machines are built by William Frech, 68 and 70 West Monroe street, Chicago.

List of Patents.

The following Patents were granted to citizens of the Southern States, bearing date May 5, 1885. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Altmeier, Jacob, Benwood, W. Va. Cold air blast for the protection of rail makers.....	317,916
Armstrong J. D., Rocky Mount, N. C. Manure drill.....	317,483
Bissell, T. L., Charleston, S. C. Automatic time stock-feeder.....	317,708
Brinkman, A. H., Baltimore, Md. Shirt.....	317,711
Brooks, A. A. & A. J., Macomb, Texas. Pitman-rod.....	317,919
Camp, E. W., Puckett, Ga. Mortising and boring machine.....	317,721
Clark, O. P. & L. C. Crouch, Bertonville, Ark. Wax-end twister.....	317,729
Gonacher, Alexander, San Antonio, Texas. Refrigerating apparatus.....	317,699
Cross, W. F., Whiteville, Tenn. Horse-power.....	317,519
Diggs, C. E., Balto., Md., and W. L. Messick, Carter's Creek, Va. Self-leveling table for ships.....	317,748
Dunn, W. W., Fort Worth, Tex. Water-wheel.....	317,934
Fennell, Joseph, Cynthiaana, Ky. Horse-boot.....	317,525
Graves, W. W., Whitesborough, Texas. Sliding-gate.....	317,765
Highbarger, J. L., Sharpsburg, Md., Saw jointing and setting device.....	317,781
Horton, H. A. R., Cleburne, Texas. Watch-makers' pliers.....	317,648
Howard, S. M., Wheeling, W. Va. Chimney and globe for lamps.....	317,537
Johnson, J. E., Presscott, Ark. Motor.....	317,542
Jones, M. H., Raleigh, N. C. Bouquet-holder.....	317,550
Lamb, G. W., Bowie, Texas. Apparatus for hoisting bales on wagons.....	317,803
McRea, J. A., Austin, Texas. Churn.....	317,559
Mercer, W. H., Mercer, S. C. grain-separator.....	317,827
Mergenthaler, Ottmar, Baltimore. Machine for producing printing bars.....	317,828
Morrison, H. M., Glendale, Miss. Fruit-cutter.....	317,563
Nelson, T. C., & J. Hanrahan, N. C., Rice-planter.....	317,565
Newnan, O. M., Milton, Fla. Rice-bulker.....	317,840
Nicholas, J. H., Sumter, S. C. Pear-harvesting machine.....	317,666
Pace, R. R., Lineville, Ala. Automatic vehicle-brake.....	317,846
Roff, H. L., Memphis, Tenn. Dumping-wagon.....	317,576
Titus, I. R., & H. C. Bossinger, Huntington, Va. Car-coupling.....	317,889
Tripp, H. B., Baltimore, Md. Burglar-proof safe-door.....	317,688
Troy, D. B., Montgomery, Ala. Propulsion of ships, &c. 14 patents.....	317,890
Van Dirzen, E. W., Jr., Newport, Ky. Cooking-stove.....	317,895
Walter, W. C., Richmond, Va. Clock-movement frame.....	317,898
Waters, John, Augusta, Ga. Boiler-cleaner.....	317,600

THE Lidgerwood Manufacturing Co., New York, say their sales for the past three weeks have averaged three engines a day. They are running full time, and if this state of things continues will soon have to run their works overtime.—*American Machinist.*

THE MANUFACTURERS' RECORD, of Baltimore, is doing a great work for the South. No manufacturer should be without it. The entire South owes it a debt of gratitude for properly representing our industrial progress.—*Anniston, Ala., Hot Blast.*

A Very Extensive Southern Machine Co.—The Milburn Gin and Machine Co.

We take much pleasure in presenting an illustration and description of the very extensive works of the Milburn Gin and Machine Company, of Memphis, Tenn., one of the largest enterprises of this kind in the South, and one that has few if any superior in its line of work anywhere in the United States.

These works, as they now stand and as they appear in the accompanying cut, are entirely new throughout. Their construction was commenced in the latter part of 1883 and vigorously pushed, the boiler and sheet iron shops having been built and equipped during the last eight or ten months. The ground occupied by these works extends 300 feet north and south by 400 feet east and west, and is entirely surrounded by streets 80 feet wide. In the erection of these buildings over 5,000,000 brick were used, besides an immense amount of lumber and cast and wrought iron. Railroad tracks run through the grounds and also through the main build-

ing of the main building are all of iron, on the first floor, and so constructed that they can be readily used for swinging derricks. The machine shop has traveling cranes for the convenient handling of heavy material. All the buildings have fire-proof roofs, and, while they are not constructed for ornamental purposes, a considerable amount has been expended to make them attractive to the eye. No pains have been spared to have the various departments well-lighted, well-ventilated and easily warmed in winter, so that the greatest comfort can be given employees. The works are provided with a special railroad track, directly connected with the Kansas City Railroad, which diverges as soon as it leaves the main building, connecting with the foundry on one side and on the other with the warehouse. The main building is provided with an elevator, by which easy access may be had to all three stories. The warehouse also has an elevator. In the foundry there are three cupolas, one with a melting capacity of six tons per hour, one of three tons capacity for the same time, and a smaller one for smelting brass and for making a better class of light work. The

shears, punch, planer, bending rolls and hydraulic crane, and Tweddle's English patent and English make hydraulic riveter, with hydraulic pump and accumulator; also a traveling crane for the steam machinery use, together with a complete set of tools for sheet-iron work.

In the wood-working department will be found surface, dimension and pony planers; cut-off, rip, shaping, jig and band saws; universal wood-workers, mortising and tenoning machines, wood lathes and numerous special machines covered by patents for special use in building cotton gins and wood pulleys, together with all the machinery, tools and appurtenances of a well appointed pattern shop.

A railroad track enters the works through the main building, with side tracks running to the foundry and boiler shops. All iron and coke for foundry is unloaded from the cars at the cupolas; boiler iron is unloaded at the shears, the first machine used in building boilers; lumber and coal are all unloaded where they are wanted for use or to be stored.

The Milburn Gin & Machine Company

The Huguenin Patent Brick.

T. A. Huguenin, of Charleston, S. C., has issued a circular describing his patent bricks, from which we take the following:

"It is further claimed by me that the bricks can be manufactured at any place where clay is found suitable for making good bricks. The expense of transportation is thus avoided. The price of bricks suitable for this purpose in this market is \$8.50 per thousand. Coal-tar \$2 per barrel, pine-gum \$2 per 286 pounds, bitumen \$50 per ton and alum \$3 per 100 pounds. At these prices the bricks can be prepared and laid at a cost of \$1.75 per square yard. I presume the above prices will not vary much at any city in the United States, and consequently a durable, comparatively noiseless roadway, free from dust and impervious to water, which will not become slippery, can be laid for less money than either stone, asphalt or wood.

The undersigned claims that he has simply imitated nature. It is admitted by every one that the best roadway for all purposes is a hard clay road. This road has two serious drawbacks—it is dusty in dry weather and boggy in wet. These bricks are nothing more than a clay road prepared in such a manner as to be free from dust and always dry and hard. These bricks will stand the variation of climate, and will neither crack nor melt." Mr. James G. Holmes, Holliday street and Exchange Place, Baltimore, is agent for these bricks.

Expecting Better Business.

In reply to our inquiry regarding the condition of business, the head of one of the largest and most influential machinery establishments in the country said in our office a day or two since, that he thought favorably enough of the present business situation and outlook to feel hopeful of a gradual revival of business during this year. Believing that materials are not likely to go lower, his firm has reached the conclusion that it will now be safe and prudent to begin making up, somewhat in advance of the present demand, a moderate stock of such of their machinery

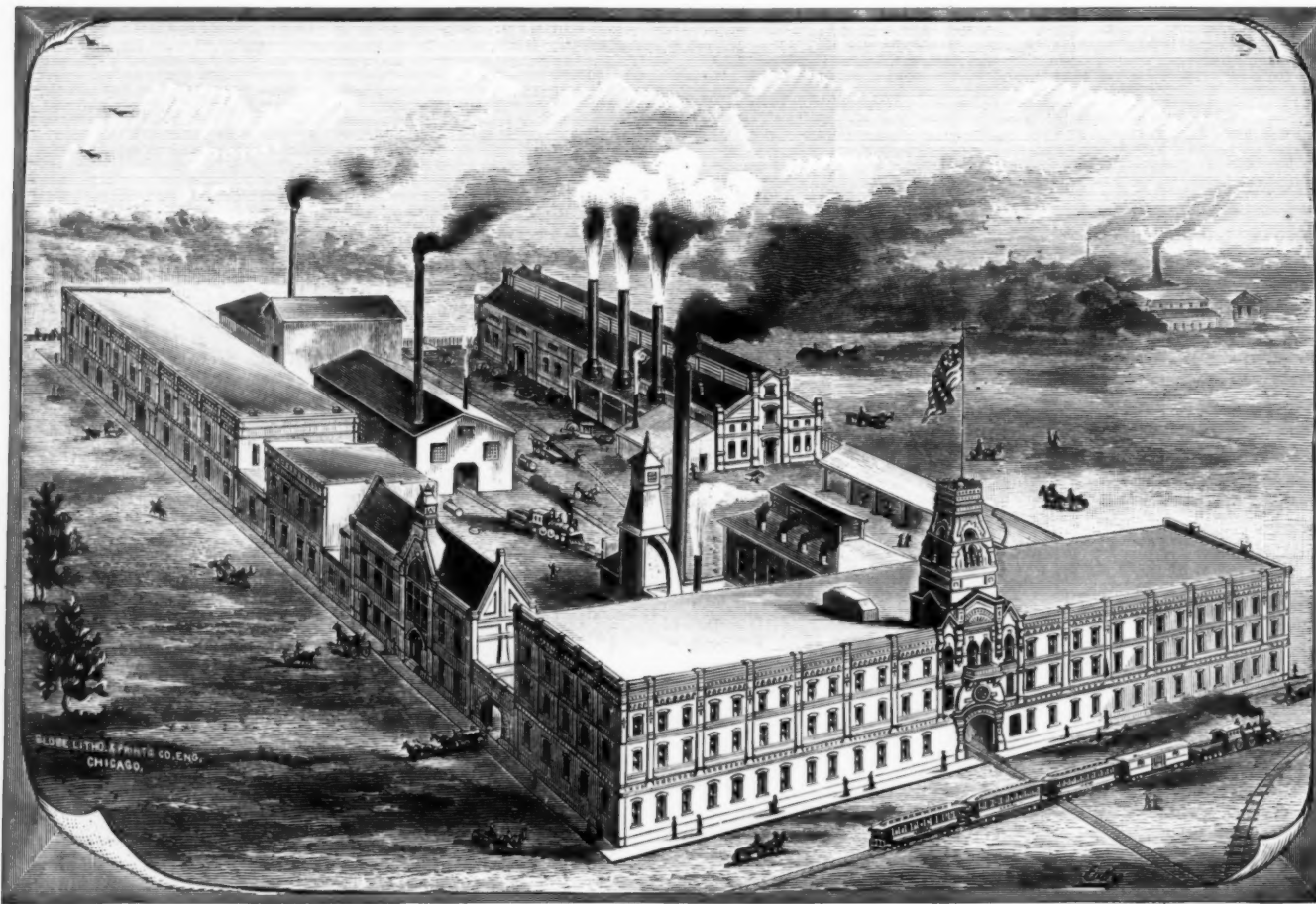
and tools as are reasonably staple.—American Machinist.

THE machinery for the use of the Pennsylvania Lumber Company will begin to arrive at Webster depot next week. The company propose to expend \$40,000 in the construction of a boom across the Tuckaseegee, at the mouth of Scott's creek, the wildness of the stream in high water making that expenditure necessary.—Citizen, Asheville, N. C.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, May 19, 1885.

Within the last week or ten days there have been rather more indications of an improvement in business than for some time past, and a few large enterprises that had been closed for a long time have lately started up. There is still, however, only a moderate activity in trade and industrial matters. While almost every condition is favorable for a return of better times, it would be folly for anyone, after the failure of so many predictions by so many authori-



THE MILBURN GIN AND MACHINE COMPANY.

ing, thus affording the most complete facilities for receiving the raw material, iron, lumber, coal, &c., and for shipping the finished product.

The buildings are a machine and wood-working shop, fronting on Fifth street, and following Broadway toward the east, 60x300 feet, three stories high, the first of which is eighteen feet, the second fourteen and the third ten feet. The railroads pass into the works through folding doors in the middle of this building. The foundry is 65x155 feet, fronting on North Broadway. The office is 24x60 feet, two stories high, fronting on South Broadway, and has a vault in each story for the safe-keeping of valuable papers, drawings, books, plans, etc. The paint-shop is 44x64 feet, two stories, fronting on South Broadway, and the warehouse 60x180 feet, also two stories, and facing South Broadway. The blacksmith-shop is on the interior of the lot, 44x64 feet, as also the engine and boiler-house, 30x45 feet. These buildings are all of brick, with extra heavy walls, the first stories of all laid in cement mortar and the foundations in the best cement. Every course of brick is grouted. The posts

foundry is provided with cranes—two forty-foot and one thirty-foot.

There are four special departments: machine shop, including blacksmith shop, foundry, boiler works, and wood-working shop, including paint shop. The floor space is 108,000 feet.

The machine shop is supplied with modern special tools, such as horizontal boring mill, radial drill, milling machine, slotting machine, boring mill, iron pulley lathe and borer, improved lathes, planers and gear cutter, a full line of iron-working machines and tools, traveling crane, gib cranes, and in fact all the tools, machinery and equipments necessary for a first-class shop. The blacksmith department is fully equipped for all classes of work. The foundry is said to be second to none in the country in appointments, with large and small cupolas, brass furnace and powerful cranes. This company can make iron castings from 30 tons to the smallest in use, and can also fill any ordinary order for brass castings.

The boiler works are capacious, splendidly lighted and convenient, and are equipped with the Niles Tool Works steam power

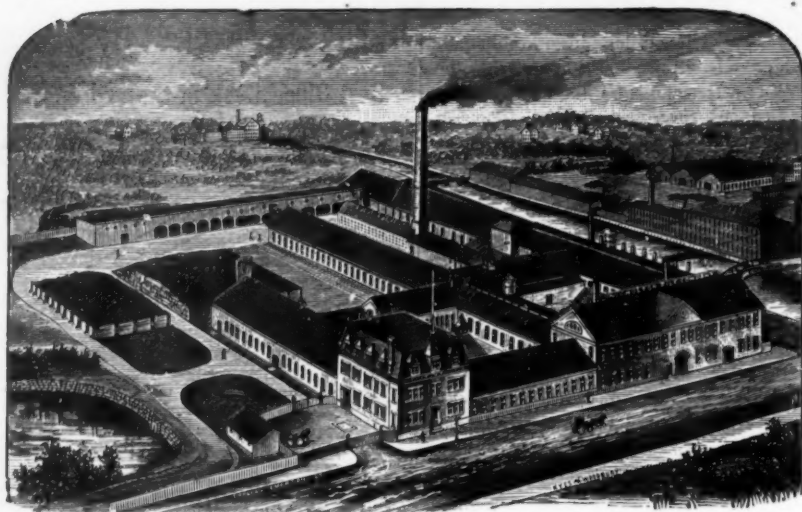
manufacture cotton gins, cotton gin self-feeders, cotton gin condensers, cotton cleaners, cotton presses and all kinds of ginwright material, steam engines, horse-powers, oil mill machinery, including hydraulic presses, heaters, crushing rolls, screens, hullers, shakers, pumps, linters, cake breakers, meal mills, &c.; machinery supplies, such as shafting, pulleys, couplings, &c.; also architectural, plantation, railroad and steamboat work. A new catalogue, handsomely illustrated, will be sent upon application.

Oil Machinery.

The attention of those persons needing oil machinery is called to the card of A. B. Lawther, on page 471, this issue. Mr. Lawther has six Taylor presses and preparing machinery, all in good order, and which may be had at a sacrifice. His address is 118 and 120 N. Market street, Chicago, Ill.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

Importers of Knox's Gilling Thread and all kind
Fishing Tackle, and dealers in Cordage. 61 South
Street, Baltimore, Md.



Nicholson File Co.

Works—PROVIDENCE R. I.—1882.

JARVIS PATENT FURNACE FOR SETTING STEAM BOILERS.



Economy of Fuel, with increased capacity of Steam Power. Like the **Siemens Process of Making Steel**, it utilizes the waste gases with hot air on top of the fire. Will burn all kinds of waste fuel without a blast, including Slack Coal, Sawdust, Logwood Chips, &c. Send for Circulars.

Jarvis Engineering Co.,

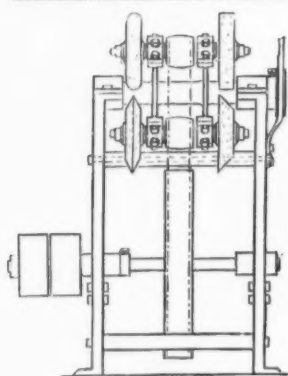
A. F. UPTON, Treas. and Gen'l Manager,
61 Oliver St., Boston, Mass.

JOSHUA C. COE, Agent for Maryland and Virginia,
O'Donald's Wharf, Baltimore, Md.

SOUTHERN REFERENCES:

Eagle & Phenix Mfg. Company, Columbus, Ga.
Anniston Mfg. Co., Anniston Ala.
J. P. King Mfg. Co., Augusta, Ga.
Rose Mining Co., Charleston, S. C.
Maryland Pavement Co., Baltimore, Md.
Brush Electric Light Co., Baltimore, Md.
Ettrick, Matoca and Battersea Mfg. Co's.,
Petersburg, Va.
Rasin Fertilizing Co., Baltimore, Md.
Tanner & Delaney Engine Co., Richmond, Va.
Sibley Mills, Augusta, Ga.

Graniteville Mfg. Co., Graniteville, S. C.
Charleston Bagging Co., Charleston, S. C.
P. H. Mayo & Bros., Richmond, Va.
Phosphate Mining Co., Beaufort, S. C.
Brush Swan Electric Light Co., Norfolk, Va.
Columbus Ice & Refrigerator Co., Colum-
bus, Ga.
Lenoir Manufacturing Co., Lenoir, East
Tennessee.
Vanceuse Mill, Graniteville, S. C.



BLAISDELL'S
Eight Wheel Emery Machine,

FOR GRINDING
ALL KINDS OF IRREGULAR CUTTERS.



GOODELL & WATERS.

Manufacturers of all kinds of WOOD-WORKING MACHINERY, Warerooms, 115½
Liberty Street, New York. J. H. BLAISDELL, Manager.



EWART'S PATENT CHAIN BELTING

Especially designed for the rapid and economical
handling of Grain, Malt, Saw Dust, Coke and Clay, Dry
and Spent Tan, Phosphates and Chemicals, Broken Stone,
Coal, Ice, Ores, etc.

R. SWORMSTEDT,

48 S. FREDERICK ST.

Sole Agent for Maryland, Virginia,
North Carolina, South Carolina and
Georgia.

Send for Illustrated Catalogue

Please mention this paper.

TO STEAM USERS.

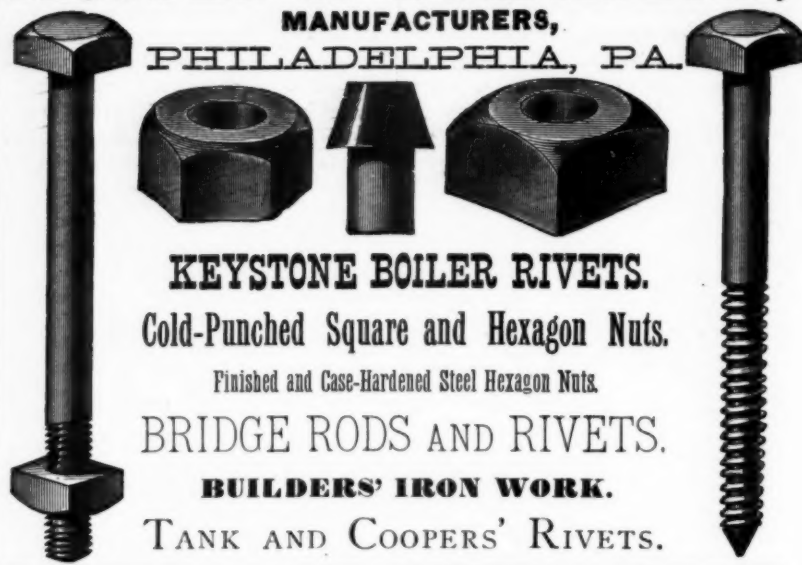
I will Remove and Prevent Scale in any Steam Boiler, or make no charge. My Remedy will also
Neutralize the most destructive waters, and prevent

GROOVING, PITTING, AND WASTING OF IRON.

Which causes so many Boiler Explosions. A book on "Care and Management of Steam Boilers."
Address **GEO. W. LORD, 316 Union Street, PHILADELPHIA, PA.**

MOOPES & TOWNSEND,

MANUFACTURERS,
PHILADELPHIA, PA.



KEYSTONE BOILER RIVETS.

Cold-Punched Square and Hexagon Nuts.

Finished and Case-Hardened Steel Hexagon Nuts.

BRIDGE RODS AND RIVETS.

BUILDERS' IRON WORK.

TANK AND COOPERS' RIVETS.



THE MEDART PATENT

WROUGHT * RIM * PULLEY.

THE LIGHTEST, STRONGEST,
BEST BALANCED, AND CHEAPEST
IN THE WORLD.

Whole pulleys from 9 inches to 120 inches diameter. Split pulleys from
12 inches to 120 inches diameter.
All widths of face up to 36 inches, crowning or straight, with single,
double or triple sets of arms. Also tight and loose pulleys. Absolute
Satisfaction Guaranteed. SHAFTING, HANGERS, COUPLINGS, &c.

MEDART PATENT PULLEY CO.,

1206 TO 1214 N. MAIN STREET, ST. LOUIS, MO.

STORES: 99 & 101 W. Second St., Cincinnati. 24 & 26 S. Canal St., Chicago.

MACHINE * MOLDED

Cast Pulley Castings

Machine-molded Pulleys save from 10 to 20 per cent. in turning, balancing,
and also in weight; and, being perfectly proportioned, are far stronger than hand-
made PULLEYS. We have a capacity of 120 pulley castings a day, ranging
from 6 inch diameter, 11 inch face, to 36 inch diameter, 24 inch face. We also
keep a large assortment of Journal-box Castings, Face Couplings, Set Collars,
Boiler Fronts, etc., on hand. Send for Price-Lists.

Standard Foundry Comp'y,

1240 to 1248 Collins Street, ST. LOUIS, MO.



THE MACKENZIE PATENT CUPOLA AND BLOWER

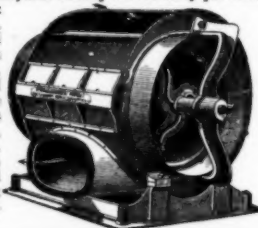
Send for Circular to SMITH & SAYRE MFG. CO., Proprietors, 245 Broadway, N. Y.



This Cupola has made a great revolution in melting Iron. It differs from all others in
having a CONTINUOUS TUYERE, or in other words, the blast enters the fuel at all points.
Above one ton capacity per hour, they are made oval in form. This brings the blast to
the center of the furnace with the least resistance and smallest possible amount of power,
and in combination with the continuous Tuyere causes complete diffusion of the air
throughout the furnace, and uniform temperature, melting ten or fifteen tons an hour
with the pressure of blast required to melt two or three tons in an ordinary Cupola. It
also enables us to save very largely in time and fuel, the experience of our customers
showing a gain of twenty-five to fifty per cent. in time, and twenty-five to forty per cent.

QUALITY OF CASTING, especially in light work.
This is due to the thorough diffusion of the air and
more perfect combustion, extracting less carbon
from the iron, making a softer and tougher casting.

We manufacture these Cupolas of any desired
capacity, numbered from 1 to 20, inclusive, the
numbers indicating the melting capacities in TONS
PER HOUR—No. 1, one ton; No. 2, two tons; No. 3,
three tons per hour, and so on up to 15, or 20 tons.
We have improved the construction of these Cupolas
in every way, have increased their strength and
durability, and sought to make them as convenient
for working and repairs as our own and the experi-
ence of our customers could suggest.



"DYNAMIC" ROCK DRILLS.

Air Compressors, Boilers,

HOISTING ENGINES,

Mining, Quarrying and Stone-Working Machinery a Specialty.

SEND FOR CIRCULARS AND CATALOGUES TO

C. W. MELCHER, 620 Chestnut St.

—ST. LOUIS, MO.— Mention this paper.



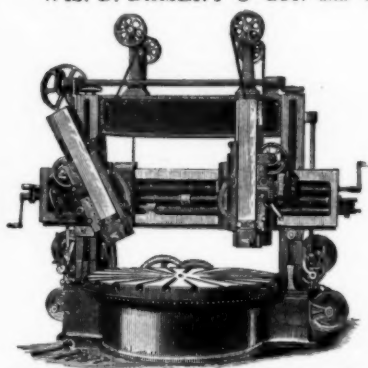
BEMENT, MILES & CO.SUCCESSORS TO
WM. B. BEMENT & SON and THE MACHINE TOOL WORKS,

PHILADELPHIA,

Manufacturers of

**Metal Working Machine
TOOLS**

of all descriptions, and of a great number of sizes, including Lathes, Planers, Drills, Shapers, Slotters, Milling and Boring Machines, Steam Hammers, Steam and Hydraulic Riveters, Cranes, Punches, Shears, Bending Rolls, Plate Planers, &c.

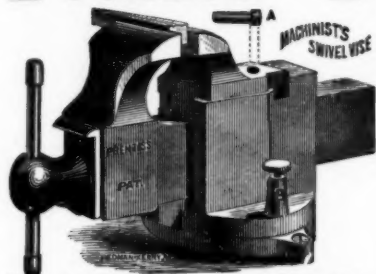
**Prentiss' & Patent & Vises.**

Adjustable Jaw.

Stationary or Pat. Swivel Bottoms

CANNOT GET OUT OF ORDER.

Cheapest and Best Vises for Railroad Shops, Machinists, Manufacturers, Mechanics, &c.

**"Peerless" (Swivel Jaw) Pipe Grip.**
Every Part Interchangeable.
CAN BE USED ON ANY VISE.**"PEERLESS" (SWIVEL) PIPE GRIP.**

For Sale by the Trade.

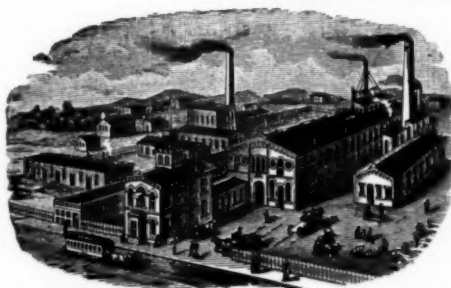
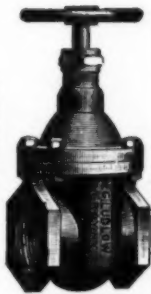
PRENTISS VISE CO., 23 Dey Street, NEW YORK, Sole Proprietors.

Ludlow Valve Manfg. Co.

Office and Works:

938 to 954 River Street, and 67 to 83 Vail Avenue,

—TROY, N. Y.—

**VALVES**Double and Single Gate, 1/4 inch to 48 inch—outside and inside
Screws, Indicators, etc., for
Gas, Water, Steam, Oil.
Send for Circular.

Also Fire Hydrants, Yard and Wash Hydrants, Check and Foot Valves.

WREN'S PATENT GRATE BAR.Is Enduring, Economical, Saves Fuel, Carries a Live and Even Fire.
Send for Circular and list of users.**DAVID S. CRESWELL,**

816 RACE STREET, PHILADELPHIA, PA.

**IMPROVED HOISTING ENGINES,**MANUFACTURED BY THE
LIDGERWOOD MFG. CO.,

Offices and Salesrooms: 96 Liberty St., New York.

MORTON, REED & CO., Agents,
59 and 61 German St., Baltimore.Specially adapted
for Railroad and Contractors'
uses, Pile-driving,
Bridge and Dock
Building, Excavating,
etc. Single or double cylinders,
with single or double improved
friction drums, with or without
Boilers.**WM. SELLERS & CO.**

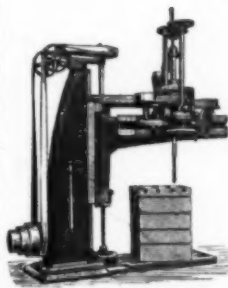
PHILADELPHIA.

Iron and Steel-Working Machine Tools

For Railways, Machine Shops and Rolling Mills,

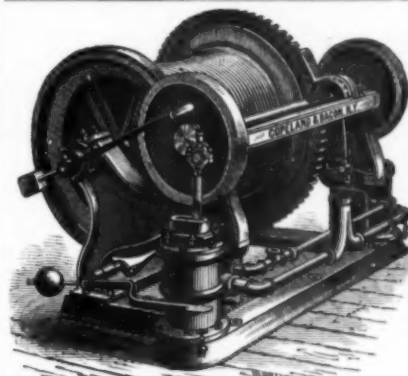
—)ALSO(—

Shafting, Pulleys, Hangers, Couplings, &c.



Price-Lists and other information given when requested.

Were the first parties to design and introduce the BALL and SOCK-ET HANGERS, ADJUSTABLE COUPLINGS, and the system of selling Shafts, Pulleys and Couplings by the piece. Will be pleased at any time to give estimates for work in place, in mills, or at our works.

**BACON** Winding Engines,
Furnace Hoists,
Mine Hoists.

(With or Without Boilers.)

"Mining PLANTS," Concentrating Works and Dredging Machinery
Furnished Complete.**COPELAND & BACON,**

85 Liberty Street, New York.

FAIRBANKS & CO., Agts., } Philadelphia, Pa.
} Pittsburgh, Pa.
} Buffalo, N. Y.

REFERENCES:—Croton Magnetic Iron Mines, Brewster's, N. Y. Crown Point Iron Co., Crown Point, N. Y. Belvidere Iron Co., 52 Broadway, New York. Sea Island Chemical Co., Beaufort, S. C.

THE MIDVALE STEEL CO.**TIRES and AXLES**

OF EVERY DESCRIPTION.

TOOL-
AND
MACHINERY STEELSPRING AND GUN
STEEL.

CRUCIBLE AND OPEN HEARTH STEEL.

Works & Main Office:

Nictown, Philadelphia, Pa.

BRANCH OFFICE:

333 Walnut St., Philadelphia, Pa.

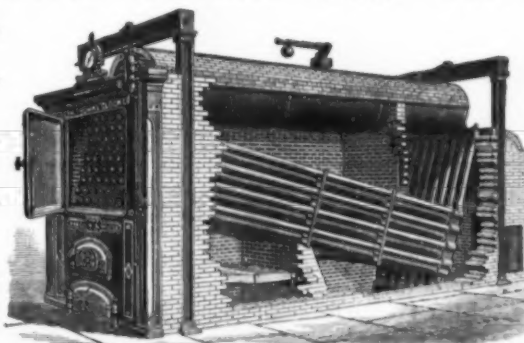
GUILD & GARRISON,

BROOKLYN, N. Y.

Steam Pumps,

VACUUM PUMPS, AIR COMPRESSORS.

SEND FOR CATALOGUE.

The Babcock & Wilcox Water Tube Boilers.BRANCH
OFFICES:50 Oliver Street,
Boston.32 N. 5th St.,
Philadelphia.66 Fourth Ave.,
Pittsburg.54 Carondelet
St., N. Orleans.64 W. Third St.,
Cincinnati.BRANCH
OFFICES:707 Market St.,
St. Louis.64 S. Canal St.,
Chicago.561 Mission St.,
San Francisco.San Ignacio,
No. 50, Havana,
Cuba.107 Hope Street,
Glasgow,
Scotland.Manufactured by the **BABCOCK & WILCOX CO., 30 Cortlandt Street, NEW YORK.**

SAML. G. B. COOK & CO., HARDWARE

MANUFACTURERS' AGENTS

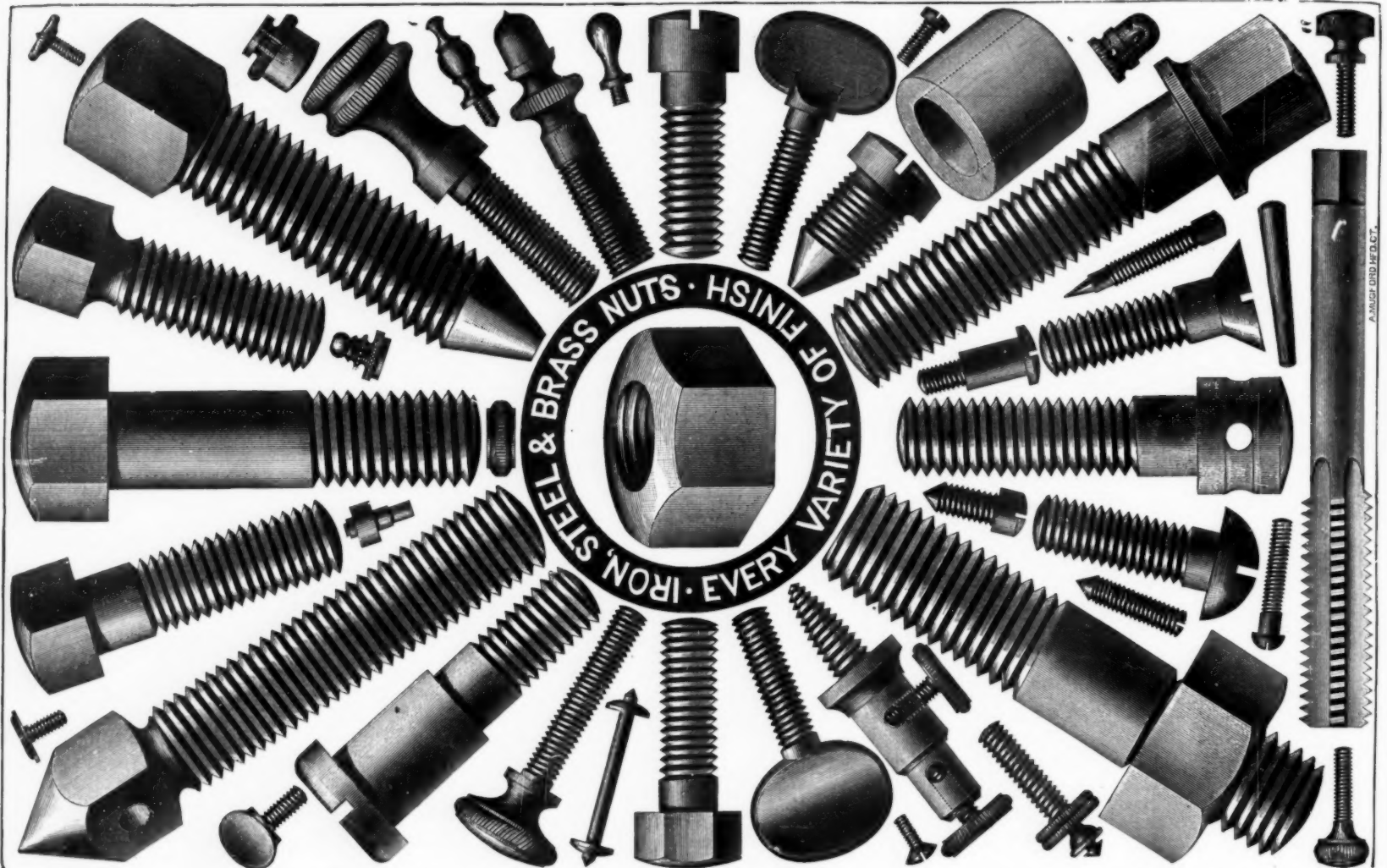
63, 65, 67 and 69 German St., BALTIMORE, MD.

AGENTS FOR

T. V. Allis Mfg. Co.—Buckthorn Wire.
American Screw Co.—Screws, Rivets, Bolts, etc.
Branford Lock Works.
Boss Molasses Gates.
Carr & Crawley.—Shelf and Carriage Hardware.
Lancaster Bolt Co.—Eagle Carriage Bolts.
Lawson & Brenizer.—Hay and Manure Forks.
Meriden Britannia Co.—Rogers Bros.' At Plated Goods.
Northwestern Horse Nail Co.
Nicholson File Co.
Naugatuck Cutlery Co.
Globe Horse Nail Co.

Clark Hardware Co.—Spring Butts, Screen Frames, etc.
Cowles Hardware Co.—Geers, Butts, Screw Drivers, etc.
H. Chapin's Sons.—Rules, Levels, Gauges, etc.
Clark Bros. & Co.—Bolts.
Essex Horse Nails.
A. Field & Sons.—Tacks, Finishing Nails, etc.
Hubbard, Bakewell & Co.—Lippincott Axes, Saws, Shovels and Hoes.
Holroyd & Co.—Stocks and Dies.
Henry W. Kipp.—Hammers.
Klein, Logan & Co.—Picks, Mattocks, Sledges, etc.
Kimball's Patent Shovels and Spades.
Lockwood Steel Hoes.

Peck Bros. & Co.—Brass Cocks.
Payson Mfg. Co.—Building Hardware.
Patton Mfg. Co.—Enameled and Tin'd Hollow Ware.
Roy & Co.—Strap and T Hinges and Wrought Butts.
Saranac Horse Nail Co.
Scott Mfg. Co.—Peach and Apple Pearers, etc.
George M. Scott.—Blacksmith Bellows.
Wilson's Mfg. Co.—Coffee Mills, Vises and Ship Hardware.
Walker's Horse and Mule Shoes.
International and Pimlico Brand of Horse Nails, Foreign and Domestic Hardware, Cutlery, Chains, Pistols, etc.



The Hartford Machine Screw Company, Hartford, Conn.

—MANUFACTURERS OF—

Hexagon, Square, Round or Fillister Head Cap Screws, Oval Point and Cupped Point Set Screws, Collar Screws, Hanger Screws, Stud Bolts, Studs and Rolls.

Sewing Machine Screws, Gun Screws, Clock Screws and Trimmings, Piano Screws and Trimmings, Shear, Thumb and Watch Screws, Metal Dowel Pins for Pattern Work, Taper and Straight Pins of all Sizes. Taps and Reamers to match. Telegraph, Electrical and Optical Work. All kinds of Fancy Turned Metal Work. Many of the above varieties we carry in stock.

Small Screw Tools a Specialty.

Cheap Rotary Pumps for Supplying Machine Tools with Oil, Soda Water, &c.

The attention of Model Makers, Machine Builders and Buyers of Machine Screws is called to the fact that we carry in stock a great variety of Milled Machine Screws, including all Standard Sizes, with Taps to match. By Referring to our Stock, much Time and Expense may be saved. PRICES Reasonable. Send for Lists.

NEW YORK. ♦ CINCINNATI. ♦ SAN FRANCISCO.

AULT & WIBORG,

—MANUFACTURERS OF—

BLACK * AND * COLORED * PRINTING * INKS,

* Lithographic Inks and Varnishes, *

CINCINNATI, OHIO.

Eastern Branch, 21 and 23 Ann Street, - - - NEW YORK.

—R. H. C. VALENTINE, Manager.—

LADLES.

Melting & Skim'ng, Monroe's Pat. 7 doz 34...	dis 40 5
Melting, C & C.....	dis 30 10 3

LAWN MOWERS.	
Acme Buckeye, Easy and Excelsior, new list.	dis 40 %
LINES.	
Linen Fish.....	dis 25 & 10 %
Wire Clothes, Galvanized, 100 feet.....	dis 30 %
LOCKS AND LATCHES.	
Cabinet, Eagle.....	Changes made in list price
Cabinet, Gaylord.....	of some numbers Jan. 1,
Cabinet, Bridgeport.....	1881, dis 25 & 2 %
Cabinet, P. & F. Corbin.....	dis 40 %
Trunk, new list, Jan. 1, 1881.....	dis 15 & 2 %
Yale Lock Co., Flat Key.....	dis 40 %
Plate.....	dis 33 1/2 %
DOOR LOCKS, ETC.	
Bradford.....	
Norwalk.....	
Norwich.....	
P. & F. Corbin.....	
Russell & Erwin.....	
Mallory, Wheeler & Co.....	
Padlocks—Russell & Erwin.....	
Mallory, Wheeler & Co.....	
Norwich Lock Manf. Co.....	
Wm. Wilcox & Co.....	
Wm. Wilcox & Co's Plate Locks.....	
Yale Lock Manf. Co's "Standard".....	
Romer's.....	
Conestoga.....	
Scandinavian, "Norwich".....	
MALLETS.	
Penfield Block Co., Apple, Hickory and	
Lignumvite.....	
MEAT CUTTERS.	
Dixon's (P. S. & W.) Nos. 1, 2, 3, 4.....	
Perry's, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.....	
Each.....	
Woodruff's (P. S. & W.) Nos. 100, 150.....	
Hales'.....	
Kieser's No. 55.....	
Kieser's Gem.....	
Kieser's No. 82.....	
Kieser's Monarch.....	
Beef Shaver, (Enterprise Manf. Co.).....	
MOLASSES GATES.	
Stebbins Patterns.....	
Stebbins Genuine.....	
Stebbins Tinned Ends.....	
Chase's Hard Metal.....	
Self-Measuring, (Enterprise).....	
Lincoln's Pattern.....	
Weed's.....	
Boos, Japaned Finish.....	
Boos, Bronze Finish.....	
NUTS AND WASHERS.	
Square Nuts.....	
Hexagon Nuts.....	
Washers.....	
OILERS.	
Zinc and Tin.....	
Brass and Copper.....	
Malleable (Hammer's).....	
PINKING IRONS.	
Per dozen.....	
PLATING MACHINES.	
Astor Plating Machine.....	
Crown Plating Machine.....	
PLANES AND PLANE IRONS.	
Bench, First Quality.....	
Bench, Second Quality.....	
Molding.....	
Bailey's (Stanley R. & L. Co.) New list, Jan.	
1879.....	
The Stanley (S. R. & L. Co.) new list,	
January 1879.....	
Bailey's.....	
Plane Irons, Butcher's.....	
Plane Irons, Auburn Tool Co.....	
Plane Iron, Ohio Tool Co.....	
Plane Irons, Sandusky Tool Co.....	
PLIERS AND NIPPERS.	
Button's Patent.....	
Hall's Pat. Compound Lever Cutting Nippers,	
No. 2, 5 in. \$13.50; No. 4, 7 in. \$21.00.....	
Gas Pliers.....	
PUMPS AND LEVELS.	
Disston's.....	
Stanley R. & L. Co.'s Pat. Adjustable.....	
Stanley R. & L. Co.'s Non-Adjustable.....	
Chapin's Patent Adjustable.....	
Chapin's Non-adjustable.....	
Standard Rule Co.'s New Adjustable.....	
Standard Rule Co.'s Non-Adjustable.....	
Pocket Levels.....	
RAIL.	
Sliding Door, Wrought Brass.....	
Sliding Door, Bronze Wrt. Iron.....	
Sliding Door, Iron, Painted.....	
Barn Door.....	
Per 100 feet.....	
B. D. for N. E. Hangers—Small. Med. Large.	
Per 100 feet.....	
RIVETS.	
Iron and Tinned, new list, Dec. 10, 1881.....	
In bulk, new list, Dec. 10, 1881.....	
Copper Rivets and Butts.....	
Nos. 7, 8, 9, 10, 12, 14, 15.....	
1/4 lb. 49c. 50c. 54c. 56c. 58c. 60c. 70c.	
RIVET SETS.....	
Rods.....	
Stair, Brass.....	
Stair, Black Walnut.....	
RULERS.	
Boxwood. Ivory.	
Chapin's.....	
Standard.....	
Stanley.....	
Stevens & Co.....	
Stevens & Co. Miscellaneous.....	
SAD IRONS.	
Self-Heating, Charcoal.....	
Mrs. Pott's Iron.....	
Enterprise Star Irons, new list, July 20, 1881.....	
Comb'd Fluter and Sad Iron.....	
Common Sad Irons.....	
SAND PAPER.	
Baeder & Adamson's Flint, 00 to 1 1/2.....	
Baeder & Adamson's Flint, 2, 3, 4, 5, 6, 7, 8, 9, 10.....	
Baeder & Adamson's Flint, Assort'd 4 to 75 r.m.....	
Baeder & Adamson's Star.....	
Baeder & Adamson's Emery r.m. 50 to 11.50.....	
J. Bartle's Sand, Flint and Emery Paper.....	
SASH CORD.	
Common.....	
Patent.....	
Silver Braided Lake Hemp.....	
Silver Braid, Lake White Cotton.....	
Silver Braided Lake Drab Cotton.....	
Silver Lake Cable Laid, Bengall Unbleached	
Hemp, 17 cts.....	
Russian Hemp, 10 cts.....	
Italian Hemp, 34 cts.....	
SASH WEIGHTS.	
Solid Eyes, in 500-lb. lots and over.....	
SAUSAGE STUFFERS OR FILLERS.	
Miles.....	
Perry.....	

Enterprise Mfg. Co.....	dis 25 %
Monarch.....	dis 40 %
SAWS.	
Boynton's Lightning Cross Cuts, new list.....	dis 40 %
Boynton's Circular and Mill.....	dis 40 %
Boynton's Ice.....	dis 25 %
Boynton's Lightning Hand, Panel and Rip.....	dis 25 %
Disston's Circular.....	dis 40 %
Disston's Cross Cut.....	dis 20 %
Disston's Hand, Panel, Rip, &c.....	dis 20 %
Hubbard, Bakewell & Co. Circular Saws.....	dis 40 & 5 %
Hubbard, Bakewell & Co. Cross Cut.....	30c. ft.
Hubbard, Bakewell & Co., One-Man's, X Cut.....	dis 40 & 5 %
Hubbard, Bakewell & Co., Mill Saws.....	dis 40 & 5 %
Peace Circular and Mill.....	dis 40 %
Peace Hand, Panel and Rip.....	dis 25 %
Peace Cross Cuts.....	dis 35 %
Peace Hand Saws, all widths.....	dis 10 %
Webster Cross Cut, with handles.....	dis 25 & 10 & 10 %
Griffin's Hack Saws and Blades.....	dis 30 %
SAW FRAMES.	
White.....	dis 10 %
Saw Rods.....	dis 10 %
SCALES.	
Stillman's Genuine.....	dis 10 %
Stillman's Imitation.....	dis 10 %
Common Lever.....	dis 10 %
Leach's.....	dis 15 %
Hammer, Hotchkiss.....	dis 10 %
Aiken's Genuine.....	dis 10 %
Aiken's Imitation.....	dis 10 %
Disston's.....	dis 10 %
Morrill's.....	dis 10 %
SCALES.	
Hatch, Counter, No. 171.....	dis 37 1/2 %
Hatch, Tea, No. 161.....	dis 37 1/2 %
Union Platform, Keystone.....	dis 45 %
Chicago Scale Co.....	dis 45 %
Fairbanks'.....	dis 45 %
Forsyth Scale Co.....	dis 45 %
Howe's.....	dis 45 %
Chatillon's Grocers'.....	dis 45 %
Chatillon's Eureka.....	dis 45 %
Family Universal.....	dis 45 %
Family Favorite.....	dis 45 %
Family Turnbull's.....	dis 45 %
Scale Beams, List of Jan. 12, 1882.....	dis 45 %
SCRAPEERS.	
Adjust. Box Scraper (S. R. & L. Co.) \$6.50, dis 20 & 10 %	
Box, 1 Handle.....	dis 10 %
Box, 2 Handle.....	dis 10 %
Foot.....	dis 45 & 10 %
Ship, common.....	dis 45 %
Wilson Mfg. Co.....	dis 45 %
SCREW DRIVERS.	
Douglas Mfg. Co.....	dis 40 %
Disston's.....	dis 40 %
Cowles Mfg. Co.....	dis 40 %
Stanley Rule & Level Co's. Var. Hds.....	dis 40 %
Stanley Rule & Level Co's. Black Hds.....	dis 40 %
Ratchet.....	dis 33 1/2 %
Clark's Patent.....	dis 25 %
Shepardson.....	dis 25 %
SCREWS.	
Flat Head Iron, A. S. Co's list, Jan. 1, '85, dis 80 & 5 %	
Round Head Iron.....	dis 75 & 10 %
Flat Head Brass.....	dis 25 & 10 %
Round Head Brass.....	dis 75 %
Flat Head Blued, add 2 1/2 % to net of invoice.....	
Brass and Silver Capped.....	dis 75 %
Japaned, list of Plain Screws.....	dis 75 %
Coach, Patent Gimlet Point.....	dis 75 %
Coach, Common or Lag.....	dis 60 & 10 %
Red.....	dis 10 %
Machine, Flat Head, Iron.....	dis 55 %
Machine, Round Head, Iron.....	dis 50 %
Bench, Iron.....	dis 50 & 10 %
Bench, Wood, Reach.....	dis 10 %
Bench, Wood, Hickory.....	dis 10 %
Hand, Wood.....	dis 20 & 10 %
Hand Rail, Sargent's.....	dis 60 & 10 %
Hand Rail, Humason, Beckley & Co's.....	dis 40 & 10 %
Hand Rail, Am. Screw Co., list Jan. 1, '81.....	dis 70 %
Jack (Wilson's).....	dis 25 %
SCREEN FRAMES AND FIXTURES.	
Standard Window Screens No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.....	
" Window Corner Irons, No. 3, 4, 5, 6, 7, 8, 9, 10.....	
" Door.....	
" Door Latches, 1/2 dozen, \$3.60.....	
Porter's Patent Window and Door Screen Frames.....	
PER DOZ. SETS.	
In Im. Bl'k.....	
White.....	
No. 20.....	
No. 21.....	
No. 22.....	
No. 23.....	
No. 30.....	
PORTER'S CORNERS.	
No. 0. Corners and Sticks complete for a	
three-foot window, 1/2 doz. sets.....	
No. 1. Set for Window, 1/2 doz. sets.....	
No. 1 1/2. " " 1/2 doz. sets, Bronzed.....	
No. 4. " " 1/2 doz. sets, Bronzed.....	
No. 4 1/2. " " 1/2 doz. sets, Bronzed.....	
No. 4 3/4. " " 1/2 doz. sets, Bronzed.....	
No. 2 1/2. " " 1/2 doz. sets, Bronzed.....	
No. 3. " " 1/2 doz. sets, Bronzed.....	
SHEARS AND SCISSORS.	
American (Cast) Iron.....	
Pruning.....	
Barnard's Lamp Trimmers.....	
Tinners'.....	
Massachusetts.....	
Seymour's.....	
Jersey Shears.....	
J. Wiss & Son, Nickle, 50 & 85 % Japaned, 60 & 85 %	
SHEAVES.	
Sliding Door, M. W. & Co., List.....	
Sliding Door, R. & E. list.....	
Sliding Door, Patent Roller.....	
Sliding Door, Pt. Roller, Hatfield's.....	
Sliding Door, Russell's Anti-Friction.....	
SHOVELS AND SPADES.	
Ames, New List, July 1, 1881.....	
Griffiths.....	
Remington's (Lowman's Patent).....	
Rowland's.....	
Kimball's.....	
Lippincott, new list.....	
Hussy, Bins & Co.....	
SPOKE TRIMMERS.	
Bonney's.....	
Stearns'.....	
Ives'.....	
Dougllass'.....	
SILVER PLATED WARE.	
Wm. Rogers Manf. Co.....	
Holmes, Booth & Hayden.....	
Brown Bros.....	
Wallace's Steel Silver Plated.....	
Rogers Bros 1847.....	
C. Rogers & Bro.....	

SILVER PLATED HOLLOW WARE.	
Wm. Rogers Manf. Co.....	dis 40, 15 & 5 %
Meriden Britannia Co.....	dis 33 1/2 %
SPOONS.	
Britannia.....	dis 60 & 10 %
Tinned, Iron, Table and Tea.....	dis 65 %
Tinned Iron Basting.....	dis 65 %
German Silver.....	dis 40 %
STONE.	
Hindustan No. 1, 5c.; Axe, 8c.....	net
Sand Stone.....	dis 33 1/2 %
Washita Stone.....	dis 10 %
Washita Stone, Slips.....	dis 45 %
Arkansas.....	dis 50 %
SQUARES.	
Steel.....	dis 50 %
Iron.....	dis 50 %
Nickel Plated.....	dis 50 %
Try Square and T Bevels.....	dis 50 %
Disston's Try Square and T Bevels.....	dis 40 %
TACKS, BRADS, &c.	
New List, Sept. 1, 1882.....	
Tinned Swedes Tacks.....	dis 50 %
Tinned American Tacks.....	dis 50 %
Swedes Tacks, all kinds.....	dis 50 %
American Cut Tacks.....	dis 50 %
Copper Tacks and Nails.....	dis 50 %
Hungarian Nails.....	dis 35 %
Gimp and Lace Tacks.....	dis 30 %
Gimp and Lace Tacks, Tinned.....	dis 30 %
Finishing Nails.....	dis 40 %
Trunk and Clout Nails.....	dis 30 %
Common and Patent Brads.....	dis 30 %
Basket Nails.....	dis 30 %
Brush Tacks.....	dis 20 %
Leathered Carpet Tacks.....	dis 20 %
Cigar Box Nails.....	dis 40 %
Chair Nails.....	dis 30 %
Double-pointed Tacks.....	dis 70 & 10 %
TAP BORERS.	
Common and King.....	dis 30 %
Ives' Tap Borers.....	dis 15 & 10 %
Enterprise Mfg. Co.....	dis 25 %
TOBACCO CUTTERS.	
Enterprise Mfg. Co (Champion).....	dis 25 %
Wood Bottom.....	dis 12.00, dis 40 & 5 %
All Iron.....	dis 40 & 5 %
Wilson's.....	dis 35 %
THERMOMETERS.	
Tin Case.....	dis 75 & 10 %
Storm Glasses.....	dis 25 %
TOE CALKS.	
Winsted.....	dis 9c. dis 5 %
TRAPS.	
Game, Newhouse.....	dis 35 %
Game, Onida Pattern.....	dis 60 & 10 %
Game, Blake's Patent.....	dis 40 & 10 %
Mouse, Wood, Choker.....	dis 10c.
Mouse, Round Wire.....	dis 10 %
Mouse Cage, Wire.....	dis 20 %
Mouse, Catch-em-alive.....	dis 20 %
Cyclon Mouse.....	dis 75 cts.
Ideal Mouse.....	dis 10c.
Rat, "Decoy".....	dis 10c.
Dehision Mouse, per doz.....	\$1.50
TROWELS.	
Lothrop's Brick and Plastering.....	dis 25 %
Reed's Brick and Plastering.....	dis 15 %
Disston's Brick and Plastering.....	dis 20 %
Clement & Maynard's.....	dis 20 %
Worrall's Brick.....	dis 20 %
Brades & Walby's.....	dis 20 %
Garden.....	dis 55 %
TRUCKS (WAREHOUSE, &c.)	
Handy Truck.....	dis 2.50 net
Penfield Block Co.' list, 1882.....	dis 35 %
Peerless, with Cogs, No. 3.....	dis 40 %
Peerless, with Cogs, No. 4.....	dis 60 %
Eureka, No. 2.....	dis 42 %
VISES.	
Solid Box—Wilson's.....	dis 50 %
" Trenton.....	dis 45 %
" Iron City Tool Works.....	dis 50 %
Bench—Wilson's.....	dis 45 %
" Trenton.....	dis 25 %
" Parker's.....	dis 20 %
" Prentiss's.....	dis 25 %
" Bonney's.....	dis 35 %
Well Wheels.....	dis 60 & 10 & 10 %
WIRE.	
Brass and Copper, list of Jan. 17, 1884.....	dis 15 %
Bright and Annealed.....	dis 10 %
Bright and Annealed.....	dis 10 %
Bright and Annealed.....	dis 10 %
Coppered.....	dis 10 %
Galvanized, Nos. 0 to 18.....	Market list dis 40 %
Tinned, Nos. 0 to 18.....	dis 60 %
Tinned Broom Wire, Nos. 18 to 25.....	dis 60 %
Annealed Fence, Nos. 8 & 9.....	dis 55 %
Annealed Grape, Nos. 10 to 14.....	dis 50 & 10 %
Fence Staples, Galvanized.....	dis 75 %
Japaned Barb Fence.....	dis 6c.
Galvanized Barbed Fence.....	dis 6c.
Buck 1 horn Galvanized.....	dis 40 %
Picture.....	dis 40 %
Clothes Line, Galvanized.....	dis 75 %
Wire Cloth, green, drab and black.....	dis 2 c net
WRENCHES.	
American Adjustable.....	dis 45 %
Raxter's Adjustable "S," list Jan. 1880.....	dis 20 & 5 %
Raxter's Diagonal.....	dis 20 & 5 %
Cox's Genuine.....	dis 60 %
Cox's "Mechanics".....	dis 60 %
Cox's Pattern, Malleable.....	dis 75 %
Cox's Pattern, Wrought.....	dis 60 & 10 %
Girard Standard.....	dis 50 & 10 %
Girard Agl.....	dis 60 & 10 %
Always Ready.....	dis 25 %
WRINGERS.	
Universal, XX, No. 2.....	dis 35 %
Universal, XX, No. 2.....	dis 40 %
Universal, XX, No. 1.....	dis 50 %
Universal, XX, No. 1.....	dis 60 %
Universal, XX, No. 8.....	dis 20 %
Universal, XX, No. 12.....	dis 20 %
Universal, XX, No. 18.....	dis 22 %
Universal, XX, No. 22.....	dis 30 %
Peerless, no Cogs, No. 1.....	dis 42 %
Peerless, with Cogs, No. 2 1/2.....	dis 45 %
Peerless, with Cogs, No. 2.....	dis 48 %
MISCELLANEOUS.	
"Diamond" Vegetable Grater.....	dis 10 %
Rotary Knife Potato Parer.....	dis 10 %
Metallic Shingles.....	dis 50 %
Hopper Cherry Seeders.....	dis 50 %

MACHINISTS
and others should examine
the merits of our new im-
proved 14x40 inch Screw
Cutting Lathe. Price \$175.
Descriptive price-list of
lathes and tools mailed on
application.
SEBASTIAN, MAY & CO.
129 W. Pearl St., Cincinnati, O.

Architectural Iron Works.
J. P. WALTON & CO.
CINCINNATI, OHIO.
Manufacturers of all kinds of IRON WORK for
building purposes.—Store Fronts, Columns, Lintels,
Joists, Stairs, Railing, Roof-Trusses, Doors, Shutters,
etc. Jail work a specialty. Write us for catalogues.

J. H. RATTERMANN, President.
F. G. DUERR, Vice President.
THE U. S. VARNISH CO

THE RUTHENBURG AUTOMATIC
FIRE EXTINGUISHING & ENGINEERING CO.
 —CINCINNATI— O. U. S. A. —
CONTRACTORS FOR THE COMPLETE
EQUIPMENT OF FACTORIES & MILLS OF ALL KINDS
AGAINST FIRE
 ABUNDANT WATER SUPPLY. NO FREEZING.
 INSTANT ALARM. LOW INSURANCE.

GHANDLER & TAYLOR, Phoenix Machine Works,

Manufacturers of **INDIANAPOLIS, IND.**
SIDE CUTTING MULAY SAW MILL.

Send for Circular and Prices.

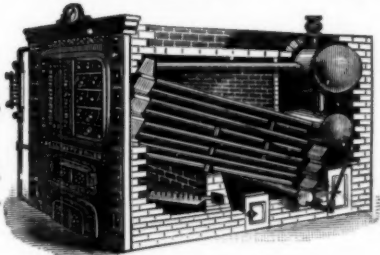


Send for Circular and Prices.

This is a valuable general purpose SAW MILL, being well adapted to class-sawing among lumbermen, but is most generally used for neighborhood work. When the power is very light it will still do proportionate work.

ZELL'S SAFETY BOILER.

Economy
 Unexcelled,
 Durability
 Guaranteed.
 Send for Circulars.



POSITIVELY
 WILL NOT
 EXPLODE.

SAFETY STEAM GENERATOR CO.

68 Warren Street, New York,

—BY—
 PIONEER IRON WORKS, BROOKLYN, N. Y.

BRASS!

Roll, Sheet and Platers' Brass,

—GERMAN SILVER—

COPPER, BRASS AND GERMAN SILVER WIRE,

BRASS and COPPER TUBING,
BATTERY and PLATERS' SILVER, &c.

PHILIP R. VOGEL, JR.

Manufacturers' Agent,

No. 79 German Street, Baltimore, Md.

PORTABLE FORGES Empire Portable Forge Co.
 Cohoes, N. Y.
 Send for Catalogue.

SCALE IN BOILERS!

The DANGER and REMEDY!

Steam Users should realize the Danger and Extravagant Waste of Fuel resulting from Scale in Steam Boilers. We offer you a perfect Remedy in our **Boiler Powder**, which is absolutely harmless to Boilers or Connections. For particulars address,

OHIO SCALE SOLVENT CO.,

C. W. WITHENBURY, Secretary,
 Room 27 Glenn Building.

Cincinnati, Ohio.

DO YOU USE STOVE REPAIRS?

Having a Stock of Repairs for over 12,000 different Stoves, can we not make it to your advantage to trade with us?
PROMPT SHIPMENTS AND SATISFACTION GUARANTEED.

The W. C. Metzner Stove Repair Co.

125 & 127 W. Randolph Street, - CHICAGO.

CATALOGUE SENT FREE.

STEAM PUMPS
 SEND FOR PRICES.
VALLEY MACHINE CO. EASTHAMPTON, MASS.

The Seibert Cylinder Oil-Cup Co.

SOLE MANUFACTURERS OF

Oil Cups for Locomotives, Marine and Stationary Engine Cylinders, and the Seibert and Gates Patents, with Sight Feed.

Take Notice.

The "Sight Feed" is owned exclusively by this company. See Judge Lowell's decision in the United States Circuit Court, District of Massachusetts, Feb. 23d, 1888. All parties are hereby notified to desist the use, manufacture or sale of INFRINGING CUPS, as we shall vigorously pursue and prosecute all infringers.

THE SEIBERT CYLINDER OIL-CUP CO.
 53 Oliver St., Boston, Mass.

Scribner's Lumber and Log Book.

OVER ONE MILLION SOLD. Most complete book of its kind ever published. Gives measurement of all kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round Timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cord-wood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. New illustrated edition 1882. Ask your bookseller for it. Sent post-paid for 35 cents.
 G. W. FISHER, Box 238, Rochester, N. Y.



COLUMBIA
 THE POPULAR STEEDS OF TODAY
COLUMBIA TRICYCLES
 FOR LADIES AND GENTLEMEN
 ILLUSTRATED CATALOGUE SENT FREE.
THE POPE MFG. CO.
 597 WASHINGTON STREET.
 BRANCH HOUSES: 12 WARREN ST. NEW YORK; 105 WABASH AVE. CHICAGO; BOSTON; MASS.

WANTED!

A Practical Steam Fitter and Plumber, or Machinist and Steam Fitter, in one of the most healthful and progressive manufacturing towns in the South. Address

ANNISTON MACHINERY CO.
 ANNISTON, ALA.

—THE—
Sigourney Drill.
 Perfect, Sensitive and Strong. Interchangeable, and has a Capacity unequalled.
 MADE BY
The Sigourney Tool Co.
 MANUFACTURERS OF
 Special Machinery and Tools
 OF THE FINEST QUALITY.
HARTFORD, - CONN
 Baltimore Agents, MORTON, READ & CO., 58 German Street.
 Send for Circular.

Steam Boilers

JOHN T. COLEMAN & SONS,

Steam Boiler Works,

Cor. Holliday and Pleasant Sts., Baltimore.

Manufacturers of all kinds of Steam and Bath Boilers, Smoke Stacks, Water Tanks, Lard Kettles, &c.
 Particular attention given to repairs.

TOOLS
 TAPS & DIES
 VISES
 CHUCKS
 MACHINES
 LATHE FILES
 STEEL & STAINLESS

TOOLS for Machinists, Amateurs, Jewellers, Model Makers, Blacksmiths, Carpenters, Coachmakers, etc. Send 20 cts. for new Metal Worker's Catalogue, 300 Pages. Wood Worker's Catalogue free.
FALLMAN & McFADDEN, Philadelphia, Pa.

PATENTS
 PROCURED.
 REJECTED APPLICATIONS
 AMENDED & PROSECUTED
 INVENTORS DRAWINGS MADE.
 NO MODEL REQUIRED
HURDLE & STEIGER
 TRINITY PLAZA, N. Y.

UPRIGHT DRILLS
CUT-OFF TOOLS
TAP-DRILL GAUGES

Send for Catalogue.
 Chandler & Farquhar,
 108 Devonshire St.
 BOSTON, - MASS.
 Tools & Supplies
 for all classes
 OF MECHANICS AND
 MANUFACTURERS.

The Manufacturers' Record,

A WEEKLY PAPER,

Devoted to the Industrial Interests of the Southern States, having for its aim the Upbuilding of Southern Manufactures, and the Development of the Material Resources of the South.

BIGSBY & EDMONDS, Publishers, Baltimore.

Below are a few extracts from recent issues of Southern papers, showing the estimation in which the MANUFACTURERS' RECORD is held by those best capable of judging of the value of its work:

THE BALTIMORE MANUFACTURERS' RECORD has been doing a valuable work for the South in making a specialty of reporting Southern progress. No paper in the Union has more entitled itself to Southern gratitude than this enterprising and reliable journal. The RECORD has come to be a standard of authority in the matter of Southern advancement. Its labor has been remarkable in this work, and its care and accuracy phenomenal. As it has progressed in popular esteem, a few have endeavored to discredit its work. But all attempts have simply riveted it more strongly in public esteem. The recent publication in its issue of April 11th, of the development of the industrial interests of the South, has attracted general attention. The fine aggregate of \$20,501,000 of new capital invested in manufacturing is given. The figures, if possible, fall short of the mark, rather than overstate it. In getting up this valuable and accurate information, the editors of the RECORD underwent the enormous trouble of writing between 1,500 and 2,000 letters and postal cards. No journal has done more to bring Southern resources to Northern observation. Let our Southern press uphold the RECORD in its good labor. It has conferred an incalculable benefit upon our section.—*Chronicle and Constitutionalist*, Augusta, Ga.

Is doing a wonderful work for the South.—*Owensboro (Ky.) Messenger*.

The leading journal of its class in this country.—*Elkton (Md.) Whig*.

Our leading manufacturing organ of the South.—*Beaumont (Tex.) Enterprise*.

THE BALTIMORE MANUFACTURERS' RECORD is almost a real necessity to every live Southern manufacturer and would prove of value to every intelligent Southern man. It is devoted exclusively to the industrial development of the South, but is the most complete and reliable paper of the kind published anywhere. It is the only technical journal of which we know that, without being what is known by the stereotyped adjective "popular," is of real interest to the general reader.—*Shelby, N. C., New Era*.

Is accomplishing a work of inestimable value to our section of the country. There is no other journal in the country which contains so much valuable and thoroughly reliable information about the South. It has thrown itself heart and soul into the great and good work in which it is engaged, and has been a powerful factor in inaugurating and helping forward the march of Southern progress.—*Farmville (Va.) Journal*.

No more welcome journal, or one whose columns we take more pleasure in scanning, finds its way to our office than the MANUFACTURERS' RECORD, of Baltimore. * * * We would be gratified if some of our residents would read it long enough to become imbued with the spirit of progress its columns unfold, and then put the lessons they learn to practical use in our midst.—*Herald*, Claremont, Va.

No journal published in this country that shows more real interest in the development of the South in all its industries. It is always welcomed in our sanctum as the champion of Southern enterprise, and we find it is extensively quoted and more highly commended by the Southern press than any other trade paper in the Union.—*Citizen*, Canton, Miss.

PUBLISHES every week probably more information relative to Southern manufacturing, mining and railroad affairs than can be gathered from any other single source. It has in many ways contributed largely to the material development of the South, and deserves a wide circulation throughout the Southern States.—*Charleston, S. C., News and Courier*.

HAS closely and faithfully chronicled Southern industrial progress, and devotes itself with commendable zeal to the development of all the material resources of our section. It deserves the liberal encouragement of our people.—*Roanoke (Va.) Leader*.

Its editors have discernment enough to see that there is a bigger boom in store for this section than has yet been forecast, and it has labored zealously in aiding to unfold its resources.—*Daily Review*, Wilmington, N. C.

A well got up, lively and enterprising journal like the MANUFACTURERS' RECORD is just the right thing in the right place. No manufacturer, business man, or, in fact, anyone interested in the progress of the South, should be without it.—*The Commercial*, Newport News.

THE leading journal of its class in this country. Doing an excellent work through its close attention to all indications of industrial progress in the South. Recently it has secured a number of correspondents in Kentucky.—*Louisville, Ky., Daily Commercial*.

THE BALTIMORE MANUFACTURERS' RECORD is one of the ablest industrial journals in the country.—*Atlanta (Ga.) Constitution*.

One of the best papers published in the United States for the accomplishment of the purpose to which it is devoted. It has done more to build up railroads, manufacturing and mining interests in the Southern States than all other instrumentalities combined, and deserves and should receive the liberal support of the Southern people. It is ably edited, valuable for its exhaustive statistical record of Southern industries and enterprises, finely printed and illustrated, and is worth ten times its subscription price to every mechanic, merchant and manufacturer in the Southern States. It has a large corps of able and painstaking contributors in the Southern States, and gathers up all the material facts. We find it invaluable in giving us much useful information about the South, of which we would know nothing without the MANUFACTURERS' RECORD.—*Commercial*, Pensacola, Fla.

Interesting, trustworthy and thorough. Has in many ways contributed to the material development of the South, and deserves a wide circulation throughout the South.—*Huntsville (Ala.) Mercury*.

THE BALTIMORE MANUFACTURERS' RECORD is authority on all new enterprises in the South.—*Annisson (Ala.) Watchman*.

The leading journal of its class in this country. It is devoted exclusively to Southern material advancement, and each week contains a list of all new Southern industries. Its editorials are sound and readable.—*Charlottesville (Va.) Chronicle*.

ONE of the most welcome papers that comes to our office. It is devoted to the material prosperity of the South. Probably it has done more than any other paper for the material development and advancement of the South.—*Weekly*, Franklinton, N. C.

DOING a good work for the Southern States. It deserves the encouragement of all our business men.—*Times-Union*, Jacksonville, Fla.

One of the most interesting and useful journals that come to our table. It is the best source of information in regard to the progress of the industries of the South that we have in the country.—*Natchez (Miss.) Democrat*.

THE MANUFACTURERS' RECORD, of Baltimore, is doing a good work for the South.—*Dispatch*, Lexington, N. C.

A PUBLICATION that commends itself to every thoughtful, progressive Southern man. A complete synopsis of the development of all the industries of the South, presented in choice English and on most substantial facts. It is a weekly encyclopedia of Southern interests in all their varied ramifications.—*Sentinel*, Grenada, Miss.

THE MANUFACTURERS' RECORD is doing all in its power to advance the development of the material resources of the South. It deserves the assistance of every Southern journal and liberal patronage from our tradesmen. Its articles, always progressive, are well calculated to draw attention to our vast fields of undeveloped wealth, and its columns are perhaps more frequently quoted from than those of any paper of the kind published anywhere. The paper supplies a long-felt need in bringing facts with regard to the South before the people of the North and West.—*Wyntheville (Va.) Enterprise*.

RANKS among the industrial papers of the country. Its weekly articles on Southern industrial progress are able, interesting and reliable.—*American Lumberman*, New Orleans, La.

THE South is rapidly growing in wealth and material prosperity, and its manufacturing interests are being largely developed. There are various reasons why this is so. Its great mineral resources, salubrious climate, are prime motors in this direction, but to no outside influence is so much due as is to the MANUFACTURERS' RECORD.—*Hager-de-Grace (Md.) Republican*.

Its statistics have not been successfully contradicted, although mildly doubted by the small section of the press that still lacks capacity to realize what a vigorous, virile worker and producer the giant young New South is.—*Times Democrat*, New Orleans, La.

ONE of the ablest and most earnest workers for the development of the industries of the South.—*New River Bulletin*, New River, Va.

An energetic exponent of the marvellous resources of our section and its industrial enterprise, and has wide-spread circulation.—*The News*, Fredericksburg, Va.

THE MANUFACTURERS' RECORD has done more to build up Southern interests than any other paper of the South.—*Carthage (Tenn.) Mirror*.

PAINTS, OILS, &c.

PAINTS.	
Black Lamp, coach painters.....	75c
Black Lamp, ordinary.....	40c
Black Ivory Drop, fair.....	12@15c
Black Ivory Drop, best.....	20c
Black Paint, in oil.....	35@40c
Blue Prussian, fair to best, in oil.....	35@40c
Blue Chinese, dry.....	70c
Blue Ultramarine.....	15@25c
Brown, Spanish.....	10c
Brown, Van Dyke.....	5@15c
Green, chrome.....	8@15c
Green, chrome, in oil.....	9@12@15c
Green, Paris.....	good, 20c; best, 25c
Green, Paris, in oil.....	good, 20c; best, 25c
Iron Paint, bright red.....	10@12 1/2c
Iron Paint, brown.....	10@12 1/2c
Iron Paint, purple.....	10@12 1/2c
Iron Paint, ground in oil, bright red.....	10@12 1/2c
Iron Paint, ground in oil, red.....	10@12 1/2c
Iron Paint, ground in oil, brown.....	10@12 1/2c
Iron Paint, ground in oil, purple.....	10@12 1/2c
Linseed Oil, raw.....	53c
Single Boiled.....	55c
Double.....	61c
Mineral Paints.....	2@4c
Orange Mineral.....	10c
Red Lead, American.....	6 1/2@7c
Red Venetian, (English) dry.....	\$1.50 to \$1.75
Red Venetian, in oil.....	assorted cans, 9c; kegs, 6c
Red Indian, dry.....	8@12c
Rose Pink.....	10@12c
Sienna, American, raw.....	4c
Sienna, burnt, in oil.....	8@15c
Sienna, raw.....	8@15c
Umber, burnt, in oil.....	8@15c
Umber, raw.....	3 1/2@7 1/2c
Umber, raw, in oil.....	8@15c
Vermilion, Chinese.....	90c
Vermilion, English.....	60@65c
Vermilion, American, common.....	15c
White Lead, American, pure dry.....	6@6 1/2c
White Lead, American, pure in oil.....	6@6 1/2c
White, Paris, English, prime.....	in brls. 1 1/2@2c
Yellow Ochre, French.....	\$1.75
Yellow Ochre, French, in oil.....	ass'd cans, 9c; kegs, 6c
Yellow Ochre, American.....	in brls., 1 1/2@1 3/4c
Yellow Chrome.....	10@12c
Yellow Chrome, in oil.....	9@12@18c
Zinc White, American, No. 1, dry.....	5@6c
Zinc White, American, No. 1, in oil.....	7@9c
Zinc White, French (Paris) dry.....	6@12c
Zinc White, French in oil.....	10@14c

OILS.	
Bleached W. Sperm oil.....	10 1/2
Nat.....	10 1/2
B. W. Elephant oil.....	75@
" Whale oil.....	70@ 72
Prime Lard oil.....	62@ 65
Extra No. 1 Lard oil.....	60@
Lubricating oils.....	12@ 25
Miners' oil.....	45@ 55
W. Pressed Fish oil.....	38@
Seatsfoot oil.....	65@ 80
Steam-refined Cylinder oil.....	40@ 55
Best Filtered.....	65@
Signal oil.....	55@ 65
Paraffine.....	12@ 20

SUNDRIES.	
Benzine.....	7 gal., 8@10c
Turpentine.....	7 gal., 33 1/2c
Chalk.....	1/2c
Chalk, block.....	1/2c
Dryer patent Am'n.....	ass'd cans, 8c; keg, 7c
Frostings.....	40c
Glue, white.....	18@36c
Glue, sheet.....	14@20c
Glue, ordinary.....	9@12
Glaziers' Points, zinc.....	8c
Gum, Copal.....	36c
Gum, Damar.....	25c

BRASS.

ROLL AND SHEET BRASS.

Brown & Sharpe's Gauge the Standard.

New List, Jan. 17, 1884.

Dis 25 1/2

COMMON HIGH BRASS.	
Wider than 1/2 in. and including.....	10 1/2 12 14 16 18 20
To No. 20, inclusive.....	21 22 23 24 25 27 29
Nos. 21, 22, 23 and 24.....	22 23 24 25 26 28 30
Nos. 25 and 26.....	22 1/2 23 1/2 24 1/2 25 27 29 31
Nos. 27 and 28.....	23 24 25 26 28 30 32
Add 9 cts. 1/2 lb. for sheets cut to particular widths and lengths.	
Add 1/2 c. 1/2 lb. additional on each number thinner than Nos. 28 to 38 inclusive.	
Brass thinner than No. 38 is Platers' Brass.	
at.....	55 cts.
Printers' rules.....	45 cts.
Printers' Sheets and Plates cut to particular sizes and lengths No. 20, inclusive.....	30 cts.
Bracing, Spinning and Spring Brass, one cent more than common High Brass.	
Low Brass four cts. 1/2 lb. more than common High Brass.	
Gilding, Oreide and Bronze seven cts. 1/2 lb. more than common High Brass.	

SLITTING METAL.

Add to list as follows:

Over 1/2 in. to 2 in., inclusive, Nos. 12 to 20, inclusive.....	1/2c.
Over 1/4 in. to 1/2 in., inclusive, Nos. 12 to 20, inclusive.....	1
1/4 in. and narrower, not less than.....	4
Over 1/2 in. to 2 in., inclusive, Nos. 21 to 28 inclusive.....	1
Over 1/4 in. to 1/2 in., inclusive, Nos. 21 to 28, inclusive.....	2
1/4 in. and narrower, Nos. 21 to 28, inclusive, not less than.....	6
Over 1/2 in. to 2 in., inclusive, Nos. 29 to 32, inclusive.....	1 1/2
Over 1/4 in. to 1/2 in., inclusive, Nos. 29 to 32, inclusive.....	3
1/4 in. and narrower, Nos. 29 to 32, inclusive, not less than.....	12
Over 1/2 in. to 2 in., inclusive, No. 33 and thinner.....	3
Over 1/4 in. to 1/2 in., inclusive, No. 33 and thinner.....	6

1/4 in. and narrower, No. 33 and thinner, not less than..... 18
Slit Metal cut to particular lengths, 1/2 lb. additional..... 5

PLATERS' OR GOLD METAL.

In bars..... 40c.
In ingots..... 42c.
In ingots, planed or polished..... 46c.

WIRE IN COILS.

Old English gauge the Standard.	
	Common High Brass. Low Brass. Gilding, Bronze and Copper.
All Nos. to No. 16, inclusive.....	\$.22 \$.26 \$.30
Nos. 17 and 18.....	23 27 31
" 19 and 20.....	24 28 32
" 21.....	25 29 33
" 22.....	26 30 34
" 23.....	28 32 36
" 24.....	30 34 38
" 25.....	32 36 40
" 26.....	35 39 43
" 27.....	38 42 46
" 28.....	42 46 51
" 29.....	45 49 54
" 30.....	48 52 57
" 31.....	51 55 62
" 32.....	55 59 73
" 33.....	59 63 85
" 34.....	64 68 95
" 35.....	70 74 1.20
" 36.....	76 80 1.50
" 37.....	1.00 1.04 1.70
" 38.....	1.30 1.34 2.00
" 39.....	2.00 2.00 3.25
" 40.....	2.60 2.60 5.75

Spring Wire, 2 cts. 1/2 lb. advance.
Whitened Wire, 3 cts. 1/2 lb. advance.
Flat, Square and Half-round Wire 4 cts. advance on Round Wire.
Fancy Wire not less than 10 cts. advance on Round Wire.
Spooling on one-pound spools 12 cts. 1/2 lb. extra.
Spooling on ten-pound spools or more, 2 cts. 1/2 lb. extra.

BRASS TUBING.

Brown & Sharpe's Gauge the Standard for all Tubing. Per lb.
Plain, to No. 20, inclusive.....
Above 5-16 inch to 3 inches, inclusive..... 35
Plain, to No. 21, above 3 inches..... 45
" 5-16 inch to No. 20..... 45
" 1/4 inch..... 60
" 3-16 inch..... 1.00
" 1/2 inch..... 1.50

Bronze Tubing 3 cents per pound more than Brass.
Nos. 21, 22, 23, two cents advance on list for each number.
Nos. 24, 25, 26, four cents advance on list for each number.

Above No. 26, special rates.

All Mandrel-drawn Tubes, 3/8 inch and above, five cents advance on list prices.

All Mandrel-drawn Tubes under 3/8 inch, twenty-five cents per pound advance on list prices.

Fancy Tubing to No. 20..... \$0.43
English, Scotch and Extra Pattern Fancy Tubing to No. 20..... 48

Tubing sawed or cut, 2 to 4 feet long, one cent advance on list.

Add to one cent one-half cent for each additional cutting under two feet.

METALS.

TIN PLATES.

BLOCK TIN.	
"Lamb and Flag," and "Straits.".....	
Large Pigs.....	19
Small Pigs.....	20
Bars.....	25
TINNERS' SOLDIER.	
No. 1 Refined.....	13
Market Half-and-Half.....	15
Strictly Half-and-Half.....	16

ROOFING PLATS.	
IC, 14X30, Choice Charcoal Terne.....	5 50
IX, 14X30, ".....	7 75
IC, 20X28, ".....	11 00
IX, 20X28, ".....	14 50
IC, 20X28, Extra fine quality, charcoal roofing, genuine "old style" redipped.....	14 00
IX, 20X28, ".....	18 00

COKE PLATES.	
IC, 10X14, bright, "B. V." grade.....	5 00
IC, 14X30, ".....	5 00
IX, 14X30, ".....	7 00
IC, 20X20, Gutters.....	9 00

SHEET ZINC.	
In casks of 600 lbs., 1/2 lb.....	5 1/2
In smaller quantities, 1/2 lb.....	6

TIN PLATES.	
IC, 10X14, Charcoal.....	6 00
IX, 10X14, ".....	8 00
IC, 12X12, ".....	6 20
IX, 12X12, ".....	8 20
IC, 14X20, ".....	6 00
IX, 14X20, ".....	8 00
IX, 14X20, ".....	10 00
IX, 14X20, ".....	12 00
IX, 14X20, ".....	14 00
IX, 20X28, ".....	18 50
DX, 100, Plate.....	6 00
DX, 100, ".....	8 00
DX, 100, ".....	10 05
DX, 100, ".....	12 05

BABBITT METAL.	
No. 1 Ordinary.....	15
Antimony.....	9
Excelsior Babbitt Metal, No. 2.....	18
" " ".....	10
" " ".....	9

LEAD.	
Pig.....	4
Bar, (15 oz. bars).....	6 1/2
Sheet.....	7 1/2
Pipe, full coils.....	7 1/2

COFFIN.	
Tinned Sheathing, 14X48, 14, 16, 18 oz.....	25
" " Planish'd, 14X48, 14, 16 oz.....	35
" " " Boilers 7, 8, 9.....	37
Cooper Pit Bottoms.....	25
Finning Extra.....	15
Brazier's Copper, 15 to 100 lb.....	26
" " ".....	28
" " ".....	30
" " ".....	32
Bolt.....	25
Tinning extra.....	40

The Piedmont Cotton Factory.

The following extracts from the report of Mr. H. P. Hammett, the president of the Piedmont factory at Greenville, S. C., dated May 6, will be found both interesting and encouraging:

"It is not information to any one who is at all familiar with the condition of trade for the last two or three years to say that we are passing through a season of depression in all business operations and industries unprecedented in its severity and duration. It has not been confined to this continent, or to any special line of trade, or to any particular industry, but has pervaded everything everywhere in every civilized country in the world. It is not proposed here to speculate or advance theories as to the numerous causes which have combined to produce this condition of things. It is enough for our purpose to know that this depression exists, and that its effects are arbitrary and must be dealt with as a fact.

"Some of the effects of this unnatural condition of trade have been the suspension of operations by a large proportion of the manufacturing industries, thereby throwing thousands of persons out of employment; the universal reduction of wages everywhere; the stoppage of the building of railroads and the construction of industrial enterprises of every kind; the low prices and consequent unprofitable results of growing agricultural products. To these must be added the important fact that the war in China and Africa so checked the demand for all American goods for export that sales for these markets were for limited quantities and at low prices. All these contributed to cripple the purchasing power of the world to such an extent that the usual quantity of goods could not be sold for remunerative prices, because they could not be paid for. The result was an accumulation of stock in the hands of the producers, the prices of which were so reduced by the pressure to sell that there was little profit left. Everything was cheap but cotton, which, as a consequence of a series of short crops, maintained a high price throughout, but with little profit to the producers.

"And while this is apparent, and everything has felt its effects and suffered from their consequences, perhaps no great staple commodity in the country has suffered less than heavy brown cotton goods and yarns such as we make. Our location and facilities for producing them possibly give us some advantages over other parts of the country.

"Our profits for the year have been very small, yet we held our own and made a little money; but it was the result of constant effort and the most rigid economy. Reference to our statements below will show that our profits from manufacturing, after paying all expenses, except interest on borrowed commercial capital, was \$42,126.73. We made our dividend, (\$20,000,) which we paid on the 1st of July last; paid our interest, and had a small balance of profit left to carry to the credit of profit and loss:

Capital stock paid in.....	\$500,000 00
Cost of the property over the	
capital stock.....	\$219,404 95
Cash assets over capital stock,	
cost of property and all lia-	
bilities.....	15,974 54

Balance at credit of profit and loss.....\$235,379 49

Total cost of property and cash assets....\$735,379 49

"The cost of the property over the capital stock was paid out of the net profits over the dividends, and the company does not owe a dollar for its entire property, and the result is that they have a large property with comparatively small capital stock.

"We carried into effect the announcement made to you at our last annual meeting, and during the year put in a steam engine of 160 horse-power capacity, together with boilers, pumps, connections, foundations, engine house and other permanent improvements, at a cost of \$8,744.87, which has been charged to property account. This supplement to our power was indispensable to the best results of which the mill is capable.

The power is now ample and can be relied upon at all times, at either high or low water.

"Your mill, machinery and property of every kind is in the most perfect condition; the organization for efficiency and reliability of a high order, and everything pertaining to it in the best possible condition to take advantage of the first dawn of returning prosperity, which is as sure to come at some future time as that sunshine follows the storm. It is my duty to say to you, however, that there is at present but slight indication of returning prosperity. The prices of goods are as low and the demand for them as limited as at any time during the present depressed condition of trade."

The Fruit Crop for 1885.

From reports from all sections of the country the prospects for an immense crop of fruit of all kinds is encouraging. From Maryland, Delaware, Georgia, California and the southwest, a large yield of peaches is predicted. In some sections we hear the complaint of the trees having too many buds, but we are accustomed to always hear of some unfavorable symptom against a large peach crop. We can accept the above as a very mild one. Should the present outlook only yield one-half of what is expected, there will be one of the largest crops that we have had for several years.

The disadvantage formerly experienced by the grower from large crops has been greatly removed during the past few years, and is being improved each year. Instead of the entire crop, or as much as possible being hurried off to some of the large cities, to find the market glutted, and forced to sell at a loss or spoil on their hands, the growers are erecting evaporators, in which they prepare such fruit as is too ripe for transportation, selecting the firmest fruit for market. This enables them to utilize at a large profit fruit that was formerly wasted.

In visiting the peach growing sections of Maryland, Delaware, Georgia, California and the southwest, we found the Scott's Rotary Knife Peach Parer (which is manufactured in your city) in general use by packers of peaches, and the experience of them all was the same—that of all the so-called peach parers, it was the only parer that would successfully pare peaches, and it enables them to prepare an amount of peaches that otherwise would have been lost. In California, Maryland, Delaware and other points we found the Phillips Evaporator largely in use.

Established 1867.

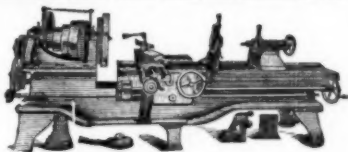
E. HARRINGTON, SON & CO.

WORKS AND OFFICE,

Cor. N. 15th St. & Penna. Ave., Philadelphia.

Manufacturers of Patent Extension

LATHES,



Iron Planers, Boring Mills, Drills,

and a variety of other MACHINISTS' TOOLS.

Patent Double Chain Screw Pulley Blocks, unrivalled for durability, safety and power.

Patent Double Chain Quick-Lift Hoists, with Brake for quick and easy lowering.

REPRESENTED BY

J. O. MAYNARD, 12 Cortlandt St., New York.
C. E. KIMBALL, 93 Oliver Street, Boston, Mass.
W. H. RICKEY, 116 Main St., Cincinnati, Ohio.
Circulars furnished.

OIL & MACHINERY FOR SALE.

Six Taylor Presses and Preparing Machinery; can be seen running and must be removed by August 1; will be sold at almost buyer's price. Address

A. B. Lawther, 118-120 N. Market St., Chicago.

Business Chances.

For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have mills, factories, manufacturing sites or water-power for sale, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers, superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.

THE OWNERS of a cotton mill in the South want an experienced man to take an interest in the mill, and take charge of same as manager. The officers and other stockholders have had no experience in running cotton factories, and besides, their time is so fully taken up with other business that they can not give personal attention to management of the finances or to the sale of the product. Machinery all new, and of the latest improved patterns. The mill is located in a flourishing and rapidly-growing city, with 6 railroads, and river navigable all the year. Coal is laid at the furnace door for \$1.70 per ton. It is desired that the manager shall have some interest in the mill, and no proposition will be entertained unless the party can put in at least \$10,000. Address A. C. M., care MANUFACTURERS' RECORD.

WANTED—A PARTNER.—\$5,000 will purchase half interest in a coal mine near Birmingham, Ala. Mine is in full operation and making a clear profit of \$4000 per day. Partner selling out is doing so on account of inability to look after his interests. For further particulars, address M. E., care MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—By a married man, a situation as overseer or superintendent of twine mill in the South; has had many years' experience in the manufacture of hard, soft and medium twines, warp, yarns, wick, &c. Can furnish best of reference as to ability, character, &c.; or would like to correspond with a party with view of introducing an improved spindle for the manufacture of the same. Address J. E. R., care of MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—A party with \$3,000 to join me in the development of 595 acres of land in Virginia, on which there are good indications of lead, cannon coal and silver; also coal oil. Lease for 99 years. Address A. S. Hanger, Lexington, Va.

A SCOTCHMAN of twenty years' experience as designer and manufacturer of the best classes of cotton and woolen fabrics, is open for engagement, or partnership with a party of means to manufacture these goods; thoroughly up in all details. Address W. M., care MANUFACTURERS' RECORD.

WANTED.—One set wool cards and jack with bobbins and picker. H. G. Hall, Fayetteville, N. C.

HAVING the requisite experience I would like to take charge of a cotton mill. Address A. E., care MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—A position in the South by a mining and mechanical engineer of large experience in connection with iron and coal works and machinery. Is a reliable surveyor, both above and below ground, and good draughtsman and accustomed to the charge of men. Address H. H., care MANUFACTURERS' RECORD, 71 and 73 Exchange Place, Baltimore, Md.

WANTED.—Position as accountant for some large manufacturing establishment South; good references given; no objection to any locality. Address "Auditor," Room No. 1, Courier-Journal Building, Louisville, Ky.

A PRACTICAL STEAM ENGINEER, well educated, who understands the use of the indicator, wants a position where knowledge will be of use. Address Economy, care MANUFACTURERS' RECORD.

A MILLWRIGHT with 30 years' experience in building milldams, mills, flumes, and water wheels, and setting up and running all kinds of wood-working machinery, would like to find a good situation in the South. Address J. S. Arnold, Wales, Hamden county, Mass.

WANTED.—Situation as superintendent of cotton factory; now employed in the South; satisfactory reasons for leaving present place; good references. Address N. C., care MANUFACTURERS' RECORD.

WANTED.—Situation by a young man as mechanical draughtsman, with patent solicitor, machine shop, mechanical engineer or draughtsman. Graduate of scientific college, engineering and machine shop experience. Reference given. Address S. S. Salter, Boston, Mass.

PARTNER WANTED.—To engage in a manufacturing enterprise near Atlanta, Ga. To a man with \$5,000 or \$10,000 to invest, and become identified with the management, this is a splendid opportunity. For full particulars, address Manufacturer, drawer 8, Atlanta, Ga.

FOR SALE.—The Blue Grass Roller Mills. New 100 barrel full roller mill; complete in every respect; best wheat elevator in State attached; capacity 30,000 bushels. This property can be bought at a great bargain. Parties owning are all engaged in other business. For full particulars, address Blue Grass Roller Mill, North Middletown, Ky.

FOR SALE.—2,000 acres (compact body) long leaf pine land in Central North Carolina, containing a deposit of superior fire clay; two miles from depot; unexcelled healthfulness; cheap labor and fuel. Price of similar land contiguous \$3 to \$7 per acre. Title perfect. Address W. M. Swann, Box 803, Wilmington, North Carolina.

WANTED.—A party to join me with some capital in a well established cotton gin factory in the South. The gins have no superior. Margins good. Water power used. Timber cheap and abundant. Address "Gin Factory," care of MANUFACTURERS' RECORD, Baltimore.

WANTED.—TIMBER.—A purchaser for the finest tract of timber land in Tennessee, near railroad—poplar, ash, hickory, red cedar, white oak and walnut. E. H. Lewis, Nashville, Tenn.

WANTED.—A man to take charge of a wood working factory. Address Box 196, Shreveport, La.

WANTED.—A good live man to take either the whole or half interest in a new store in Windsor, Alachua county, Florida; one of the healthiest towns in the State. Stock carried \$3,500. Address G. B. Griffin, Jacksonville, Fla.

FOR SALE.—83 acres of land in half mile of the growing town of Warrior, Ala. About 40 acres cleared; 2 good springs; coal under 73 acres. Great bargain. For further particulars, call on or address S. C. Davidson, Warrior, Ala.

FINE OPENING for an iron foundry. A practical man with character and capital will receive substantial aid. Address W. R. S., care MANUFACTURERS' RECORD.

VALUABLE WATER POWER for sale cheap; suitable for most any manufacturing business. This is a pleasant town of 2,000 inhabitants, and for climate and health cannot be excelled in the United States. Several kinds of manufactures needed here. Address Willard & Son, Maryville, Tenn.

WANTED.—A partner to take half interest in a two press cotton-seed oil mill and cotton mill, or will sell out. Can add other machinery. Good healthy locality. Address W. E. Yancey, Talladega, Ala.

BANK WANTED for the town of High Point, N. C. Has two tobacco factories, three sash and door factories, one spoke and shuttle block factory, three cotton factories, one steam grist mill. Population twelve hundred. No banking facilities within fifteen miles. Address E. A. Snow & Co., High Point, Guilford county, N. C.

SITUATION as superintendent of cotton mill in the South wanted by a gentleman of practical experience. No objection to being in the country. Best of references. Address J. B., care MANUFACTURERS' RECORD.

IRON WORKING MACHINERY.

NEW.

- 1 Engine Lathe, each 10, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 28, 30, 36, 42 and 48 in. swing; length of bed to suit.
- 1 Fox Turret Lathe, each 13, 15 and 16 in. swing; 5 ft. bed.
- 1 Sq. Arbor Fox Lathe, 15 in. x 6 ft.
- 1 each, Hand Lathes, 10, 12, 14, 15 and 18 in. swing.
- 1 Iron Planer, each to plane 18, 20, 22, 24, 26, 30 and 36 in. wide and high; length of table to suit.
- 1 each 16, 20, 22, 23, 25, 28, 30, 34, 36 and 40 in. swing. Upright Drills.
- 1 each, 2, 3, 4 and 6 Spindle Gang Drills.
- 1 each 8, 10, 12, 15, 20 and 25 in. Shapers.
- 1 No. 2 Milling Machine. Lincoln Pattern.
- 1 Grant & Bogert Milling Machine.
- 1 each, Nos. 2, 4 and 5 Screw Machines.
- 1 each, 3 and 7 Spindle Nut Tapper.
- 1 Boring and Turning Mill, each 50 and 72 in. swing.
- 1 Cutter Grinder.
- 1 12 in. and 24 in. Cylinder Horizontal Engine.
- 1 each 4, 5 and 6 ft. Arm Universal Radial Drills.
- 1 Pat. Makers Lathe, 25 in. x 12 ft. between centres.
- 1 Grant's New Universal Miller.
- 1 Pr. Bending Rolls for 3/4 in. x 60 in. plates.

SECOND-HAND.

- 1 Engine Lathe, each 18 in. x 8 ft. Good as new.
- 1 " " 20 x 10 ft. At order.
- 1 Iron Planer, 20 x 30 x 4 ft. At order.
- 1 " " 24 x 24 x 5 ft. " " "
- 1 " " 30 x 30 x 7 ft. " " "
- 1 " " 32 x 30 x 9 ft. " " "
- 1 40 lb. Bradley Hammer.
- 1 Lincoln Pattern No. 2 Miller.
- 1 36 in. Gear Cutter.
- 1 Horizontal Boring Machine; takes 6 ft. between centres; 36 in. swing.

All kinds Machinists' Tools and Supplies.

New York Agency of the Tanite Co.

Grant & Bogert Machine Tool Works.

AND FOR THE

"New Polished" Shafting.

H. PRENTISS & CO.

42 Dey Street, New York.

THE BRADSTREET Mercantile Agency

HAS NOW BEEN

Under its present successful management for the past seven years.

And during that time its business has more than trebled, while its facilities have proportionately increased.

No expense is considered too great in obtaining and applying to the conduct of the business all possible improvements. With its present system for obtaining and promulgating information, this Agency is justly regarded by its patrons as authority on all matters affecting commercial credit. Its ramifications are greater and its business larger than any similar organization in the world conducted in one interest and under one management.

You are respectfully invited to investigate, and if in need of an Agency, to test its ability to serve you.

CHAS. F. CLARK, President.

Baltimore Office,—American Building,

H. KERSHAW, Supt.

CORRUGATED

❖ IRON ❖

ROOFING

SIDING, CEILING,
ARCHES AND LATH.

© CINCINNATI

CORRUGATING CO.

÷ CINCINNATI, O. ÷

SEND FOR ILLUSTRATED CATALOGUE.

CRIMPED

T. C. SNYDER & CO.
—MANUFACTURERS OF—

IRON ROOFING, SIDING AND CEILING,

(The H. W. Smith Patent is the Best in use.)

PLAIN,
Corrugated,
CRIMPED,
BEADED.

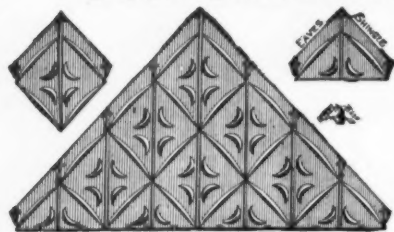
AND JOBBERS IN
IRON ORE,
PAINT,
CEMENT,
And Roofers' and
Builders' Papers.

—PATENT CALAMINED IRON IN QUANTITIES—A New Thing.—

Coating is indestructible, will not scale, is soft, solders more strongly and is superior to Galvanized Iron or Tin for all purposes. Protected both in body and surface. Circulars, Price-List and Sample mailed at request.

—CANTON, OHIO.—

Metallic Shingles FOR ROOFING OR SIDING.



UNSURPASSED BY ANY ROOFING
NOW ON THE MARKET.

**Guaranteed Storm-Proof
in Every Climate.**

Send for circular and prices of our Celebrated
Dove Tail Tin and Copper Shingles and
Iron-Clad Roofing Plates.

Anglo-American Roofing Co., 22 Cliff St., N. Y.

Works: Scottdale, Pa. Brooklyn, N. Y. Wolverhampton, England.

JNO. G. HETZEL & SON, BALTIMORE AGENTS.

METALLIC SHINGLES. IRON ROOFING AND SIDING

—Crimped and Corrugated—



W. G. HYNDMAN & Co.

52 & 54 East Second Street,
CINCINNATI, O.

—FOR—
DWELLINGS, STORES,
SAW MILLS, BARNs,
FACTORIES, SHEDS,
Etc., Etc., Etc.

Send for Circulars and Prices.
Mention this paper.

CHATTANOOGA PAINT CO.

Chattanooga, TENN. S. B. LOWE, MANAGER.

MANUFACTURERS OF THE

Best Iron Paint in the Market,

Both Dry and Ready-Mixed, for the Protection of Iron, Tin or Shingle Roofs, Out-buildings, Railroad Cars, Iron or Wooden Bridges, Gas Receivers, and machinery of all kinds, Iron Stacks and all property exposed to the weather. Our dry is furnished in barrel, ton or car-load lots, and our ready-mixed in one and two-gallon cans, half-barrels and barrels. Merchants buying 50 gallons or over in cans can have their special label put on if desired. WE GUARANTEE OUR DRY AND READY-MIXED PAINT EQUAL TO ANY IN THE MARKET.

For prices, address

CHATTANOOGA PAINT CO., Chattanooga, Tenn.

ONLY ASPHALT PAINT AND VARNISH WORKS IN THE UNITED STATES.

The **Louisville Asphalt Varnish Co.** Warrants its

ASPHALT IRON PAINT

equal to any "metallic," because made from the best Iron Oxide and Linseed Oil; and superior to them and all rivals, because it alone adds the Varnish Gum "ASPHALTUM," which not only hardens the surface and preserves the elasticity of the paint, but resists the action of all gases, acids and alkalis—the rusting elements. Approved in theory and in practice as the best for all exposed surfaces, on Cotton Seed Oil Mills, Factories, Compresses, Warehouses, Hulls and Decks of Ships, Railroad Depots, Cars, Bridges, Trestles, etc. Colors: Red, Brown and Black. Ready for the brush. No sample cards, but the paint itself, on new tin, sent to any property owner on application. Our

STACK BLACK

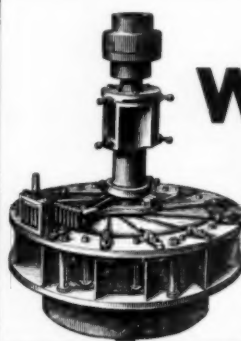
will prolong the life of your iron chimneys, large or small. It bakes on and will not scale off like coal-tar products.

ASPHALTUM BLACK VARNISHES.

A full line for Manufacturers, the Trade and Family use. Address, (mentioning this paper.)

LOUISVILLE ASPHALT VARNISH CO.,

19 and 20 Courier Journal Building, - - - LOUISVILLE, KY.



JAMES LEFFEL'S IMPROVED WATER WHEEL

MADE BY JAMES LEFFEL & CO.

The "OLD RELIABLE" with Improvements making it the Most Perfect Turbine now in use, comprising the Largest and the Smallest Wheels under both the Highest and Lowest Heads in this country. Our new Pocket Wheel Book sent free.

Address
JAMES LEFFEL & CO.,

SPRINGFIELD, OHIO.

AND 110 LIBERTY STREET, NEW YORK CITY.

ANNISTON MACHINERY COMPANY,

—MANUFACTURERS' AGENTS FOR—

Engines, Boilers, Machinery and Supplies OF ALL KINDS,

—KORTING'S DOUBLE TUBE INJECTOR,—

P. O. Box 37.

ANNISTON, ALA.

CORRESPONDENCE SOLICITED FROM MANUFACTURERS WHO DESIRE AN AGENCY.

Conductors' Punch.

Flower Stand.

Wrought-iron Fence.

Chair.

Revolving Punch.

Window Guard.

Sand and Grain Riddle.

Wire Counter Railing.

Sand Screen.

Mocking Bird Cage.

SMITH, MYERS & SCHNIER,

402 to 412 W. Front Street,
CINCINNATI, O.

MANUFACTURERS OF
**PATENT TERRAPIN
CENTRE CRANK
ENGINES,**

from 15 to 200 Horse Power.
**BOILERS AND
SAW MILL MACHINERY.**

Send for illustrated Catalogue
and prices.



"Nothing is denied to well directed Diligence."

MYERS SANITARY DEPOT.

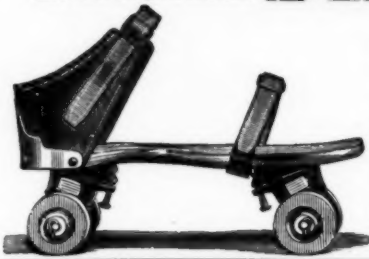
Office and Salesroom—92 Beekman Street,
Factories—126 Beekman and 212 Front Street,
Warehouses—246 Water Street,

—NEW YORK.

SPECIALTIES IN PLUMBERS' SUPPLIES.

HENLEY'S CHALLENGE ROLLER SKATE.THE LATEST AND BEST
And Most Complete Scientific**SKATES** IN THE**HENLEY'S IMPROVED CHALLENGE
RINK AND CLUB SKATES**
LIBERAL TERMS TO THE TRADE.

For prices, circulars and further particulars, address:

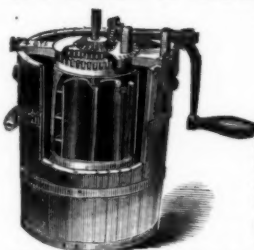
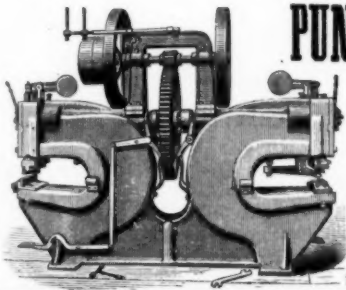
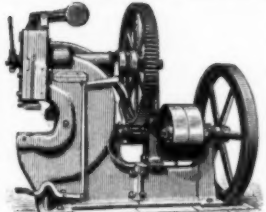
**M. C. HENLEY, Patentee and Manufacturer,
RICHMOND, IND.**Send four-cent stamp for new forty-page Illustrated Catalogue.
MENTION MANUFACTURERS' RECORD.**THE RICHMOND GLOBE ROLLER SKATE,**

The Easiest Running, Most Durable, and Most Practical Skate in the Market.

Rink men and jobbers will find the
"GLOBE RINK" skate to be superior
to all others, because:It has no springs, rivets or pins to break,
get loose or wear out. It will not crush the
rubber cushion, as their new connecting
plate prevents crushing. The wearing of
the bearings being automatic, the truck
frame will not become loose or rickety
from long usage. The tension is easily
regulated by means of the draw-bolt, to
suit the requirements of any skater. The
truck frame can be instantly detached
without removing the draw-bolt. It is
light, strong, durable, and skaters pronounce
it the best skate made.We especially call the attention of the
skaters of America to our New Half-
Clamp Corrugated Steel Bottom
Skates, in which we pride ourselves in
having the Lightest, Strongest and
Handsomest Skate in the World.
For prices and catalogues address**MITCHELL & VANNEMAN,
RICHMOND, IND.****Gooch Peerless and Giant Freezers.**Increase of Sales Nine
Hundred Per Cent.
since 1879.These Freezers have grown
into such popularity that they
are universally acknowledged
by the trade to be without an
equal, and are kept in stock
by most of the leading dealers
in every State of the
Union.We scarcely ever lose a customer who tries our goods, and
all we ask is an order for a sample, and we will send you the
best and handsomest Freezer you ever saw.

SEND FOR SAMPLE.

MANUFACTURED BY

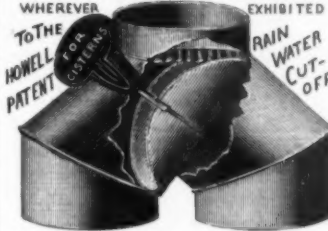
**THE GOOCH FREEZER COMPANY,
CINCINNATI.****THE LONG & ALLSTATTER CO., Hamilton, Ohio.****PUNCHES, SHEARS & HAMMERS.**DOUBLE.
SINGLE.
HORIZONTAL.
TWIN BOILER.
SPACING GATE.
MULTIPLE ANGLE.
BAR, &C.
BELT AND STEAM
DRIVEN.

Send for Catalogue.

THE CUMMER ENGINE CO.
CLEVELAND OHIO
SEND FOR 150 PAGE ILLUSTRATED CATALOGUE.

Awarded highest premiums at
Cincinnati and Louisville Expositions
of 1883, for "Best Automatic
Engine." We will furnish
anyone copies of the ORIGINAL
ENTRIES of several engine builders
who claim they were not
competing with us. They all entered
in the same class with us,
and now by deceptive Circulars
(one headed "Fact versus False-
hood") attempt to mislead.
No premiums were offered for
Condensing Engines.

AUTOMATIC

W. J. CHAPMAN, Direct Shipper Special attention given to orders from found-
ers and machinists.
COAL AND Connellsville Coke. Office, York and
William Sts. 1**HOWELL'S Patent RAIN WATER CUT-OFF**HIGHEST PREMIUM AWARDED
WHEREVER EXHIBITEDRECOMMENDED BY ARCHITECTS, BUILDERS
USERS, EVERYWHERE.For turning water into or off from the cistern. The
handle, which is an iron weight, insures the bucket remain-
ing where placed and entirely prevents its being turned by
the downflow of water. The bucket or valve passes behind
the rim at the top and overlaps at the bottom, thus securing
perfect water joints at both connections. We manufacture
all sizes from 2 1/2 to 24 in. dia.; 2 1/2 inch, \$5; 3 inch, \$6; 3 1/2
inch, \$8; 4 inch, \$9; 5 inch, \$14; 6 inch, made of 1X Tin,
\$20. These sizes are always in stock.Packed in crates of one dozen each size up to 5 inch; 5
and 6 inch in crates of 1/2 dozen each; f. o. b.; no charge
for crates. For sale by dealers all over the United States.**G. W. HOWELL, Manufacturer, COVINGTON, KY.****Standard Smelting and Refining Works,****METALS,**

BABBIT METALS.

TINNERS' SOLDER

PLUMBERS' SOLDER.

COPPERSMITHS' SOLDER.

ELECTROTYPE METAL.

STEREOTYPE METAL.

INGOT BRASS.

162, 164, and 166 Water Street,

CINCINNATI, O.

Genuine Babbitt Electrotpe and Stereotype Metals a Specialty. Daily
quotation is furnished upon application. Prices lower than any Eastern or Western market.

INGOT COPPER.

PIG TIN.

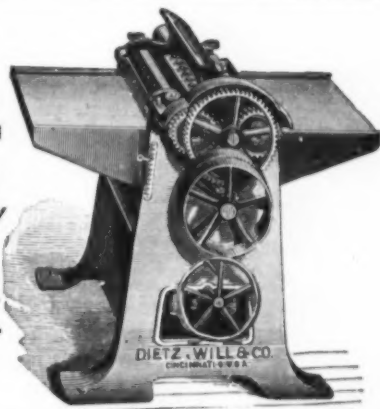
ANTIMONY.

PIL LEAD.

SPELTER.

BAR LEAD.

BAR TIN.

H. J. McKEOWN,**MACHINIST AND MILLWRIGHT.**Shafting, Hangers and Pulleys, Engineers' Supplies, Packing, Sheet Gum, Pipe, Fittings, and Brass
Goods. Special attention given to fitting out shoe and other factories, and to the repair of Gas Engines.
Has now on hand five Wais' Patent Power Combined Splitting and Squaring Shears, which are new, and
may be had on reasonable terms. Also dealer in New and Second Hand Machinery of all kinds. Write for
Catalogues. 196 E. FRONT STREET, CINCINNATI, OHIO.**DIETZ, WILL & CO.****Wood-Working Machinery.****BAND SAWS, UNIVERSAL SAW
BENCH, SAW MANDRELS, PONY
PLANERS, MATCHERS.**Shafting, Pulleys and Hangers, Wood
Turning and Pattern Makers' Lathes.186 to 191 PEARL STREET,
Cincinnati, O.**MONON ROUTE.**

Louisville, New Albany & Chicago Railway Company.

The Pullman Car
Line between CINCINNATI, INDIANAPOLIS, CHICAGO
AND THE NORTHWEST.**2 FAST EXPRESS TRAINS LEAVE CINCINNATI**
From Station, cor. 5th and Hoadly Sts. (Central Time.)**7.30 A. M. CHICAGO DAY EXPRESS.** (Except Sunday)
For Indianapolis, Monon, Frankfort, Michigan City, Chicago, Milwaukee, St. Paul,
Minneapolis and all points in the Northwest.**6.45 P. M. CHICAGO NIGHT EXPRESS (Daily)**
For Indianapolis, Chicago, Milwaukee, St. Paul, Minneapolis, Omaha, Council
Bluffs, Davenport, Rock Island and all points in the Northwest.PULLMAN SLEEPING CARS AND DAY COACHES THROUGH TO CHICAGO. BAGGAGE
CHECKED TO ALL POINTS IN NORTHWEST.**JOHN H. GARRISON,** District Pass. Agent, 129 Vine St., Burnet House Block, CINCINNATI.
JOHN B. CARSON, General Manager, CHICAGO. **WM. S. BALDWIN,** General Passenger Agent, CHICAGO.**C. H. & D. R. R.**Cincinnati, Hamilton and
Dayton Railroad.

From and to CINCINNATI.

TOLEDO, SAGINAW, DETROIT, TORONTO, AND ALL POINTS
NIAGARA FALLS, IN MICHIGAN AND CANADA.CONNEERSVILLE, RUSHVILLE, INDIANAPOLIS, PEORIA, AND ALL POINTS
BLOOMINGTON, WEST OR NORTHWEST.RICHMOND, LOGANSPOET, CHICAGO, MONON, AND ALL POINTS
DELPHI, IN THE NORTHWEST.FORT WAYNE, KALAMAZOO, GRAND RAPIDS, MACKINAW, AND ALL
PETOSKEY, POINTS IN MICHIGAN.

PULLMAN PALACE SLEEPERS AND PARLOR CARS.

For information apply at any Railroad Office in the United States or Canada. In Cincinnati, Ohio, at
Offices: N. W. Corner Fifth and Vine Streets, or Depot, Fifth and Hoadly Streets, or address**J. F. MCCARTHY,** Agents at
JNO. R. MCCORD, 5th and Vine Sts.,
Cincinnati, O.**SAM'L STEVENSON,**
General Ticket Agent.

If you contemplate the erection, extension, or alteration of any Mill, Factory, or Mechanical Works of any sort, requiring Steam, Water, or Gas to be introduced, it will well repay you to send for our Catalogue and Price-List. It will be found of service to **Pipe-Fitters, Engineers, Superintendents of Railroads, Mills, Factories, Water, Ice, Oil and Gas Companies,** and all who are interested in the use of Steam, Water, and Gas, and is an exhaustive book of reference for the selection of such goods.

PANCOAST & MAULE, 243 and 245 South Third Street, Philadelphia.

Steam

Wrought-Iron Pipes, Cast-Iron Pipes, Boiler Tubes, Spiral Riveted Wrought-Iron Pipes, Cast-Iron Fittings, Wrought-Iron Fittings, Malleable Iron Fittings, Bent Coils of Wrought-Iron Pipe for Heating, Boiling, &c., Steam Radiators, Brass and Iron Cocks and Valves, Radiator Valves, Openway Valves, Boiler Trimmings, Gauge-Cocks, Steam Gauges, Water Gauges, Steam Whistles, Lubricators, Oil and Tallow Cups, Revolution Counters, Gongs, Steam Boiler Tube Cleaners, Steam Boiling Kettles, Feed-Water Heaters, Pressure Regulators, Damper Regulators, Steam Traps, Glue Heaters, Injectors, Inspirators, Steam Pumps, Syphon Pumps, Engine Governors, &c.

Contractors for
Steam-Heating Apparatus
of all kinds.

Water

Wrought-Iron Pipes—Plain and Galvanized, Heavy Cast-Iron Pipes, Fittings of all kinds, Cast-Iron Soil Pipe, Green-House Boilers, Pipe and Fittings, Pumps of every description—Steam- or Hand-Power, Fire Hydrants and Valves, Street Main Valves, Foot Valves, Hose Valves, Pipes, Couplings, &c. Bath Boilers, Brass Water-Cocks and Valves in Detail.

Gas

Wrought- and Cast-Iron Pipes, Cast, Wrought, and Malleable Iron Fittings, Brass Fittings, Service and Meter Cocks, Gas Burners, Solder Furnaces, Gas Valves, Street Lamp-Posts and Lanterns, Gas-Fitters' Tools and Sundries.

Tools

Hand and Power Pipe-Cutting and Threading Machines, Pipe Stocks and Dies, Pipe Taps, Drills and Reamers, Machinists' Die-Plates, Machinists' Taps, Solid Bolt Dies, Pipe-Tongs, Adjustable Tongs, Pipe-Wrenches, Monkey-Wrenches, Gas-Fitters' Pliers, Augers, Pipe-Cutters, Pipe Vises, Chisels, Ratchets, Gas-Fitters' Pumps, Boiler Tube Brushes and Cleaners, Boiler Tube Expanders, Hydraulic Punches and Jacks, Patent Hand Hoisting-Machines, Oilers, Hammers, &c.

Correspondence solicited from parties requiring any Goods in the above lines.

MENTION THIS PAPER WHEN YOU ADDRESS US.

McShane & Bell Foundry

Fine Iron and Brass Castings Made to Order.



Manufacture those celebrated Bells for Tower Clocks, Court-Houses, Cotton Mills, Factories, &c. Prices and catalogues sent free. Address **H. McSHANE & CO. Baltimore, Md.**

J. W. LOANE,

13 N. Gay Street, BALTIMORE.

Manufactures and sells at lowest rates

TENTS, AWNINGS, FLAGS

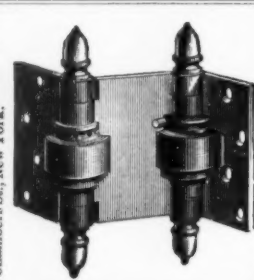
Canvas Horse Covers, Plain and Oiled, Yellow and Black.

GIVE HIM A CALL. ORDERS OR ENQUIRIES BY MAIL RECEIVE PROMPT ATTENTION.

UNION SPRING HINGES

are Simple, Easily Set.

Cannot be put on wrong. They work at once and do not require any adjustment. Light Doors they have no equal. Send for Price List. M. W. ROBINSON, Sole Agent, 9 Chambers St., New York.



BERNHARD DIETZ, Manufacturer of **Printers' Rollers**, and Roller Composition. Factory, cor. Light and Mercer streets, Baltimore. Prices: Composition, (bulk) 30 cents per lb.; for Casting, also, 30 cents per lb. Orders by Mail promptly attended to.



W. J. CLARK & BRO.

Manufacturers of

Hydrants.

These Hydrants are made of the best material, and are guaranteed to be entirely non-wasting and non-freezing. The works of these Hydrants can be taken out and repaired without breaking the ground. Send for circular.

38 N. Holliday Street,
BALTIMORE, MD.

1837. NOVELTY WORKS. 1883.

JAMES MURRAY & SON, Machinists and Millwrights

Engines and Boilers, Mills of all kinds, Marine Railways, &c. Improved Clay Tempering Machinery, Steam or Horse Power. Phosphate Machinery, Crushers, Rollers, Mixers, &c., &c.

40, 42 & 44 York Street,
NEAR LIGHT, BALTIMORE.

Repairing of all kinds promptly done.

Established 1793.

H. BALDERSTON & SON, MANUFACTURERS OF

WIRE GRATING FOR WINDOWS

Doors and Office Railing, Wire Screens for Banks, Churches and Store-Fronts. Woven Wire, Wire Tree-Guards, Sieves, Screens for Coal, Sand, &c.

66 S. Calvert Street, Baltimore.

WIRE RAILING

and Ornamental Wire Works.

DUPUR & CO. 36 N. Howard St., Baltimore.

Wire Railing for Cemeteries, Lawns, Gardens, Offices and Balconies; Window Guards, Tree Guards, Wire Cloth, Sieves, Fenders, Cages, Sand and Coal Screens, Iron Redsteads, Chairs, &c.



W. L. MERSFELDER.

MORGAN L. SMITH.

CINCINNATI PATTERN WORKS.

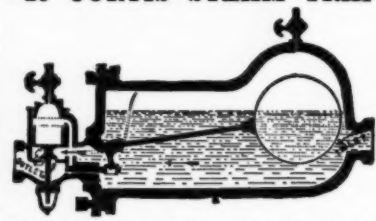
Stove Patterns a Specialty.

Artistic, Architectural and Machine Patterns Of Every Description Made on Short Notice.

N. W. COR. FRONT & PIKE STS.

Jobbing Promptly Done. CINCINNATI, O.

The CURTIS STEAM TRAP.



Has main valve outside. Air valve inside.

MANUFACTURED BY

Curtis Regulator Co., 158 Beverly St., Boston.

—GENERAL AGENCIES—

109 Liberty St., New York; No. 19 N. 7th St., Philadelphia; 86 and 88 Market St., Chicago; No. 49 Holliday St., Baltimore; No. 707 Market St., St. Louis; No. 745 Craig, Montreal.

NELSON CURTIS, Agent.



STEPHENS' VISES.

FLAT and SWIVEL BASES; SOLID JAWS STEEL FACED and SOLID STEEL BARS; ADJUSTABLE ATTACHMENTS. For Jewelers, Machinists, Car and Locomotive Works and all other Vise Work they maintain their superiority in strength, firmness of grip, durability and make; while affording the greatest economy in time and labor. Special Vises for Amateurs and Wood-Workers. Sold by the Trade. Send for Circular.

MELVIN STEPHENS, Proprietor,
Office, 41 Dey St., NEW YORK.

TOOLS. IMPROVED POWER OR HAND PLANER.

Planes 27 in. long, 12 in. wide, 8 in. high.

MACHINISTS, ENGINEERS, MODEL MAKERS

and all classes of Mechanics can find TOOLS to suit them at

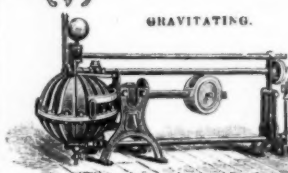
134 to 188 Washington St.

BOSTON, MASS.

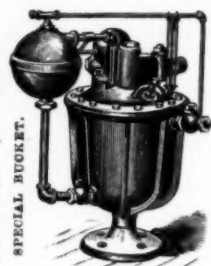
A. J. WILKINSON & CO. Catalogues free.



THE ALBANY STEAM TRAP COMPANY'S SPECIAL BUCKET And GRAVITATING Traps.



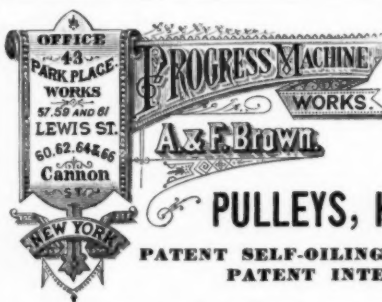
GRAVITATING. Automatically drain the water of condensation from HEATING COILS, and returns it to the boiler, whether coils are above or below the water level in boiler, doing away with pumps and other mechanical devices for such purposes.



Also, "Blessing's Patent Renewable Seat Valves."

ALBANY STEAM TRAP COMPANY, Albany, N. Y.

Office and Works, 78 and 80 Church Street.



PATENT STEEL SHAFTING

Of Superior Quality.

PULLEYS, HANGERS, COUPLINGS, &c.

PATENT SELF-OILING HANGERS,
PATENT INTERNAL CLAMP COUPLINGS,
PATENT FRICTION CLUTCHES.

A. & F. BROWN, 43 Park Place, N. Y.

STUEBNER & WOODS

168 & 170 E. Third St., Hunter's Point
LONG ISLAND CITY, N. Y.

MANUFACTURERS OF

COAL DEALERS AND STEVEDORES' SUPPLIES.

STEEL and IRON COAL TUBS,

Side and Bottom Dumping Cars, Coal and Coke Barrows,

HOISTING BLOCKS, ETC.

Send for Circulars, &c.

PATENT CLASP PULLEY

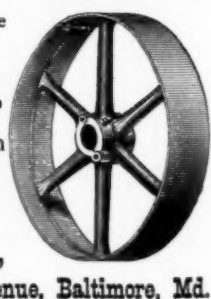
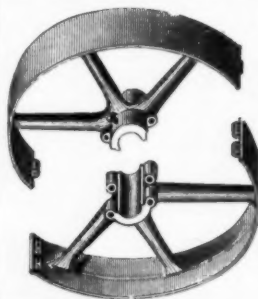
Made in Halves. Same Price as Whole Pulleys.

Shafting, Hangers.

Castings of Every Description Made. Stationary, Distillery, Mill and Boiler Work.

JNO. N. MARQUETTE,

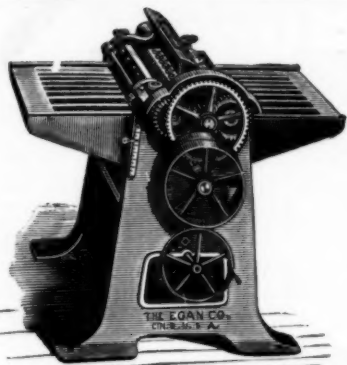
No. 6 W. Falls Avenue, Baltimore, Md.



GOVERNORS

For Water Wheels

Cohoes Iron Foundry & Mch. Co. Send for Catalogue. Cohoes, N. Y.



PATENT Wood-Working Machinery

Of the Latest and most Improved Designs for
Planing Mills, Furniture Factories, Chair
Factories, Car and Agricultural Works,
Carriage and Buggy Shops and
GENERAL WOOD WORKERS,

MANUFACTURED BY
THE EGAN CO.

(Successors to the Cordesman & Egan Co.)
228 to 240 W. Front St. Cincinnati O., U. S. A.
Thos. P. Egan, Pres. Ed. Ruthven, Sec. F. Danner, Sup.

John G. Mengel & Co.

— LEADING —

Type-Founders and Electrotypers

Modern Book, Newspaper, and Job Type cast in a superior
Copper-Mixed Metal, and on the new

JUSTIFIABLE SYSTEM OF BODIES.

LARGEST PRINTERS' SUPPLY HOUSE in the SOUTH

Dealers in and Agents for all the leading Cylinder
and Job Presses, Paper-Cutters, &c., &c.

Agents for the Celebrated German Printing Inks.

SECOND-HAND MACHINERY Bought, Sold, and Exchanged.

Complete Newspaper and Job Offices Furnished at the Lowest
Prices and on good terms.

Send for Specimen Sheets, Estimates, &c., to

31 German Street, Baltimore.

The True Idea of Assurance.

Women's Mutual Insurance and ACCIDENT COMPANY.

PRESIDENT.

ELIZABETH B. PHELPS.

FANNY M. GERARD, Treas.

ELIZABETH S. ROBERTS, Secy.

VICE-PRESIDENT.

MARGARET HOLCOMBE.

CORNELIA KAMPING, Actuary.

MEDICAL EXAMINERS.

ALFRED K. HILLS, M. D., 465 Fifth Avenue.

MARY PUTNAM JACOBI, M. D., 110 W. 34th Street.

JOHN A. KAMPING, Attorney and Counsel, 128 Broadway, New York.

The Company is incorporated under the Laws of New York, approved by the Supreme Court and Superintendent
of the Insurance Department, and subject to the latter's supervision.

ITS OBJECT

is surely and cheaply to provide an indemnity for loss by
death and accidental disablement.

ITS PLAN

consists in assessing the members ratably according to age
in the Life Class, and according to occupation or degree of
risk in the Accident Class whenever a loss in either class
occurs. In other words, the actual losses only are paid by
the policy holders, which thus secures insurance at cost.

ITS MEMBERSHIP

comprises persons between the ages of 16 and 67, of ap-
proved physical condition. The Life Class is separate and
distinct from the Accident Class, members being liable for
losses only occurring in the class to which they belong.
This company, having been organized for the purpose of
removing the prejudices which created discrimination in
Life insurance against women, has adopted the broad prin-
ciple of no discrimination in membership on account of sex.
This Company requires Agents in every city, town and village, to whom liberal terms will be given. Address as above

ITS SAFETY AND SECURITY
consists in its economical system, its certainty of solvency,
(for it incurs no risk but what the members may discharge
by one assessment,) and its SECURITY RESERVE FUND, which
in time, it is calculated, will make a member's member-
ship self-sustaining.

ITS RATES OF ASSESSMENT
are safer than those adopted by others, and are no more
expensive.

This company confines itself to the legitimate business for
which insurance has been accorded protective and encour-
aging legislation; it proposes to adhere strictly to business
principles in its management, and to establish the fullest
protection to its members in a manner the simplest, cheap-
est and most complete of any organization of equal safety.
Membership may be acquired by letter. Apply to

ELIZABETH S. ROBERTS, Secretary.
283 Fourth Avenue, New York.

283 Fourth Avenue, New York, to whom liberal terms will be given. Address as above

GRAND HOTEL



BROADWAY and 31st St., NEW YORK.

EUROPEAN PLAN.

HENRY MILFORD SMITH & SON, Proprietors.

ADAMS HOUSE,



BOSTON.

BAY STATE HOUSE,

WORCESTER, MASS.

W. L. SHEPARD, Proprietor.

This House has been thoroughly repaired and renovated, and will be KEPT STRICTLY FIRST-
CLASS IN EVERY RESPECT.

The Only First-Class Hotel in the City.

Rates, \$3.00 and \$3.50 per day

Devon Inn,

Devon, Penna.,

H. J. & G. R. CRUMP.

The Grand Hotel,

Catskill Mountains,

EDW'D A. GILLET.

COLONNADE HOTEL,

Chestnut St. Cor. 15th, one block from New Penna. R. R. Depot,

H. J. & G. R. CRUMP.

E. A. GILLET.

PHILADELPHIA.

Favorite Resorts for all Southern Travel.

JOHN R. EDWARDS,

Blank Book Manufacturer,

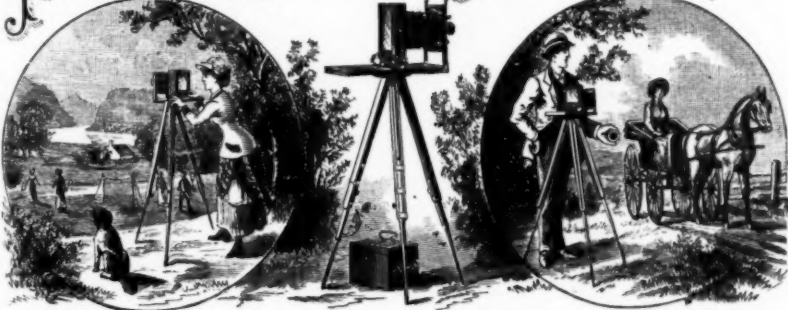
LITHOGRAPHER, PRINTER AND STATIONER,

167, 169 AND 171 W. LOMBARD ST. COR. SHARP ST.

BALTIMORE, MD.

Specialty: Account Books to order for Manufacturing Establishments, Banks
and Insurance Companies. Estimates Furnished.

PHOTOGRAPHY MADE EASY



AMATEUR EQUIPMENTS IN GREAT VARIETY, FROM \$10 UPWARD

Sole Proprietors of the Celebrated Novel Cameras.

E. & H. T. Anthony & Co.

Send for Illustrated Catalogue.

Forty years established in this line of business. 591 Broadway, New York.

WESTINGHOUSE, CHURCH, KERR & CO.

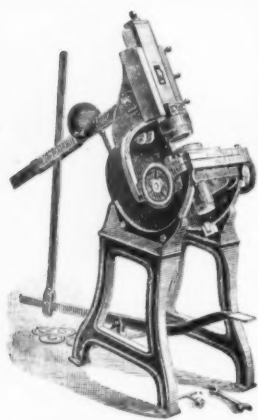
Mechanical Engineers.

Contracting and Consulting

Design and furnish Everything Pertaining to the

Generation, Transmission and Application of Power.

17 CORTLANDT ST., NEW YORK.



E. W. BLISS

Presses and Dies

MANUFACTURER OF

For Cutting, Drawing, Stamping, Reducing,
Embossing and Punching all Kinds
and Shapes of Sheet Metal.

Circular Shears for Hand and Power.

Squaring Shears for Foot and Power.

Double Seaming Machines for Round and Square Cans.
Can Makers' Machinery; Steam Chests for cooking corn,
tomatoes, &c. Can Filling Machines, Soldering Machines,
&c. Fine Engine Lathes, Shapers and Milling Machines.

Office and Factory, 143 Plymouth St., BROOKLYN, N. Y.

WORK-SHOPS

Without Steam Power

SHOULD USE

BARNES'

Patent Foot Power Machinery. COMPLETE
Outfits for actual workshop business.
With them Builders, Cabinet
Makers, Metal and Wood Work-
ers compete with steam power.
Machines on trial if desired.Proof of value, prices, full
detail, illustr'd catalogue, free.
W. F. & JOHN BARNES CO.
Rockford, Ill.
Address No. 221 Ruby St.

Dealers, send for Discounts.

Barnes' Pat. Upright Drills.
29-inch Swing, with both
Worm and Lever Feed.Barnes' Pat. Engine-Lathe
15-inch swing, 6-foot or 8-foot
Bed. These machines are made a
specialty in our factory, they have
advantages not found in other
machines in this line. It will pay
parties desiring to purchase, or
know more about this class of ma-
chines, to send for full description
and prices.W. F. & JOHN BARNES,
221 Ruby St., Rockford, Ill.

STEEL CASTINGS

FROM 1-4 to 15,000 lbs. WEIGHT.

True to pattern, sound, solid, free from blow-holes, and
of unequalled strength.Stronger and more durable than iron forgings in any
position or for any service whatever.20,000 CRANK SHAFTS and 15,000 GEAR WHEELS of
this steel now running prove this.

CRANK SHAFTS and GEARING specialties.

STEEL CASTINGS of every description.

Send for Circulars and Prices to

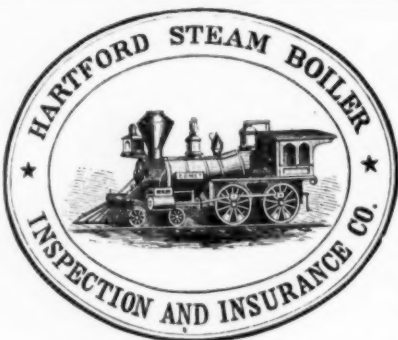
CHESTER STEEL CASTINGS CO.

Office, 407 Library Street, Philadelphia.

Works, Chester, Pa.

—ISSUES—
POLICIES OF INSURANCE

AFTER

A CAREFUL INSPECTION
OF THE

BOILERS.

Covering all
Loss or
Damage toBoilers, Buildings and Machinery
ARISING FROM STEAM BOILER EXPLOSIONS.

The Business of the Company Includes All Kinds of Steam Boilers.

Full information concerning the plan of the Company's operations can be obtained at the
COMPANY'S OFFICE, Hartford, Conn., or at any agency.

M. ALLEN, Presd.

W. B. FRANKLIN, Vice-Presd.

J. B. PIERCE, Secty.

BOARD OF DIRECTORS:

J. M. ALLEN, President.
LUCIUS J. HENDEE, President Aetna Fire Insurance Co.
F. W. CHENEY, Asst. Treas. Cheney Bros. Silk Mfg. Co.
CHARLES M. BEACH, of Beach & Co.
DANIEL PHILLIPS, of Adams Express Co.
G. M. BARTHOLOMEW, Presd. American National Bank
R. W. H. JARVIS, Presd. Colt's Fire Arms Mfg. Co.
THOMAS O. ENDERS, Secretary Aetna Life Insurance Co.
LEVERETT BRAINARD, of Case, Lockwood & Brainard.GEN. WM. B. FRANKLIN, Vice-President Colt's Patent
Fire Arms Manufacturing Co.
GEO. CROMPTON, Crompton Loom Works, Worcester.
WILLIAM ADAMSON, of Baeder, Adamson & Co., Phila.
HON. THOMAS TALBOT, Ex-Governor of Massachusetts.
NEWTON CASE, of Case, Lockwood & Brainard, Hartford.
NELSON HOLLISTER, of State Bank, Hartford.
CHAS. T. PARRY, of Baldwin Locomotive Works, Phila.
HON. H. C. ROBINSON, Attorney-at-Law, Hartford.

LAWFORD & McKIM, Agents for Maryland, 10 S. Holliday St., Baltimore, Md.

1500
ENGINES
NOW
IN
USE!THE WESTINGHOUSE
AUTOMATIC ENGINE

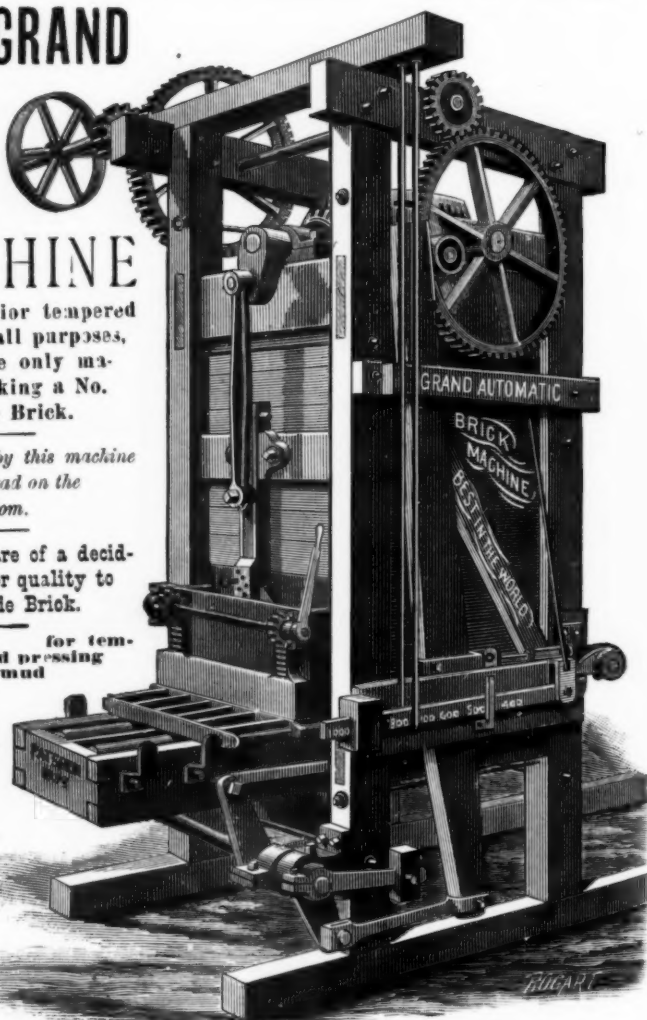
SEND FOR ILLUSTRATED CIRCULAR and REFERENCE LIST.

THE Westinghouse Machine Co., Pittsburgh, Pa.

SALES DEPARTMENT CONDUCTED BY

Westinghouse, Church, Kerr & Co. 17 Cortlandt Street, New York.
Fairbanks, Morse & Co. Chicago, Cincinnati, Cleveland, Louisville & St. Paul.
Fairbanks & Co. St. Louis, Indianapolis and Denver.
Parke & Lacy San Francisco and Portland, Oregon.
Parke, Lacy & Co. Salt Lake City, Utah, and Butte, Montana.
D. A. Tompkins & Co. Charlotte, N. C.
Keating Implement & Machine Co. Dallas, Texas.
Robert Middleton Mobile, Ala.
H. Dudley Coleman 9 Perdido Street, New Orleans, La.
Imray & Co. Sidney and Melbourne, Australia.
R. Rogers 43 Rue Lafayette, Paris.

THE GRAND Automatic Brick MACHINE

Makes superior tempered
Brick for all purposes,
and is the only ma-
chine making a No.
1 Fire Brick.Bricks made by this machine
do not spread on the
bottom.Its products are of a decid-
edly superior quality to
hand-made Brick.Built ex- for tem-
temping and pressing
stiff mudEvery
machine
guaranteed.
Correspondence
solicited.Send for
descriptive
catalogue,
containing
valuable
information
toJONATHAN CREAGER,
131 E. Front Street, - Cincinnati, O.

P. PRYIBIL, 461 to 467 W. 40th Street,
NEW YORK.

MANUFACTURER OF SUPERIOR

WOOD-WORKING Machinery.

SHAFTING, PULLEYS, HANGERS, &c.

Send postal card for
72-page catalogue.



TRADE MARK.



COVERT'S PATENT HARNESS SNAPS, CHAIN & ROPE GOODS,
ADJUSTABLE SOLDERING IRONS, &c.

These Goods are sold by all Leading Jobbers in 'General and Saddlery Hardware, at manufacturers' prices. Send for illustrated catalogue and price list.

COVERT MF'G CO., West Troy, N. Y.

Union File Co.

311 to 315 North St., Baltimore, Md.

MANUFACTURERS OF

FILES & RASPS

Made from the Best Refined Cast Steel.

With the requisite facilities to produce a first-class article, we are enabled to offer Files that will give entire satisfaction.

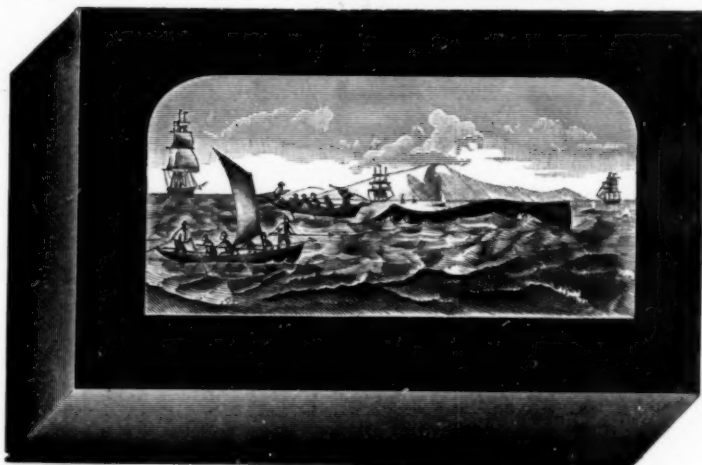
MORITZ & KEIDEL, Agents, 48 & 50 German Street, Baltimore, Md.

The Oldest Oil House in the City. Business Established 1832 (on Present Premises.)

WM. C. ROBINSON & SON,

81 SOUTH ST., BALTIMORE, MD.

Manufacturers and Wholesale Dealers in **OILS!**



Specialties—Oils for Cotton and Woolen Mills, Railroads, Tanners' and Machinery Use.

Our Colophony Cylinder Oil is the best in use, 650° fire test, 28° gravity. Perfect Engine Oil 600° fire test, 20° gravity. Colophony Engine Oil 550° fire test, 23° gravity. Agent for Downer's Spindle, Champion and Mineral Spindle, Meriam & Morgan's Paraffine Co's Paraffine, William's Odorless Lubriphene Oils. Also Manufacturers' Agent for 20°, 28° and 30° Paraffine, and 31° Neutral Bloomless Oils. Correspondence solicited.

FOR SALE CHEAP!

40 Horse Power VERTICAL BOILER.

This Boiler was built to order, of very best materials and workmanship; has double-riveted seams; was used but a short time, and is much better than most of the new boilers now made. Cost to build, \$650. For sale at HALF-PRICE, with fixtures, &c. Is a RARE BARGAIN. Ready for immediate delivery. Also, 18-horse HORIZONTAL ENGINE; very strong and heavy.

JOSEPH B. MATTHEWS,

41 Centre Market Space, BALTIMORE, MD.

ROADS, MINES and FARMS.

FORSTER'S

Rock Breaker.

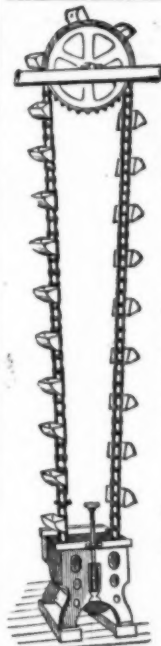
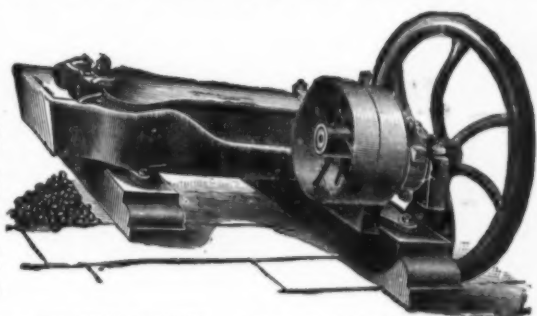
Owing to its peculiar SIDE MOVEMENT does not "shatter" the stones as all other crushers do, but makes ballast and manure equal to HAND MADE.

Very simple and inexpensive to operate. The only Crusher that can be operated with ordinary Horse Power.

Plumbers will please notice that SMALL MACHINES can be operated by HAND, by engaging the machine with a hand and pulverize Phosphate rock for Fertilizing, in one operation.

ADDRESS

TOTTEN & CO., Rolling Mill and Machinery Founders,
PITTSBURGH, PA.



ANTI-FRICTION

Roller Detachable Chain Belting.

Especially adapted for the rapid and economical handling of CLAY, TILE, LIME, PLASTER, CEMENTS, BROKEN STONE, COAL, ORES, SAND, DRY and WET TAN, SAW DUST, SLABS, PULP, GRAIN, FLOUR, ICE, &c., &c., &c. For ELEVATORS, CARRIERS, CONVEYERS, &c., &c. Propelling STEAM BOATS and for other DRIVING PURPOSES.

MANUFACTURED AND SOLD BY THE

Roller Chain Belting Co.

COLUMBUS, OHIO.

Send for Illustrated Catalogue.

Established a Quarter of a Century in the Manufacture of the Celebrated MILLER SAFES.

L. H. MILLER,

SAFE AND IRON WORKS,
BALTIMORE, MD

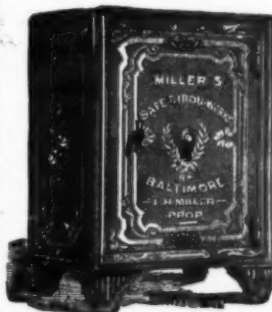
Sole Manufacturer of

Miller's Patent Fire & Burglar Proof Safes,
BANK VAULTS, DOORS AND LOCKS.

PRINCIPAL OFFICE, 252 W. BALTIMORE ST.

[NEAR HANOVER.]

Factory—Square bounded by Warner, Claret, Henrietta and Fremont Sts., South Baltimore.



CAREW'S * PATENT * WIRE * CUTTER.



These goods have recently been greatly improved. They are now made throughout of

FORGED STEEL.

The advantage of this cutter is seen at a glance. The adjustable jaws are its main feature. These are made of the best tool steel, and are brought to a keen cutting edge before being tempered. The cutting quality is unsurpassed. Whenever they become dulled by use, they can easily be removed, by driving from the end showing price-mark, ground, and as easily replaced. This may be repeated as often as expedient; or they can be replaced by duplicate jaws, thus obviating the necessity of purchasing new cutters. Five sizes 6, 8, 10, 12 and 14 inch. If your merchant does not keep them, address

M. W. ROBINSON, Sole Agent, 79 Chambers St., N. Y.

S. W. RITTER, Millwright,

—BUILDER OF—

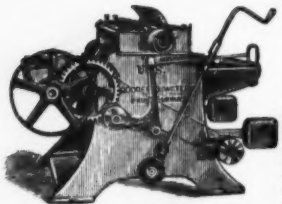
Flour and Saw Mills, Drug and Chemical Works, Portable Mills, Smut Machines, Mill Stones, Bolting Cloths, Brushes, Guano Fertilizer

Mills, and General Mill Supplies,

261 S. Caroline Street, BALTIMORE, MD.

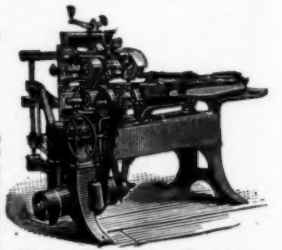
IMPROVED * WOOD-WORKING * MACHINERY

For Planing Mills, Sash, Door and Blind Factories, Chair and Cabinet Makers,
Furniture Factories, Carriage, Wagon and Buggy Shops, Car, Agricultural Implement Works, and



U. S. 24-inch Endless Bed
Single Surfacers.

GENERAL WOOD-WORKERS

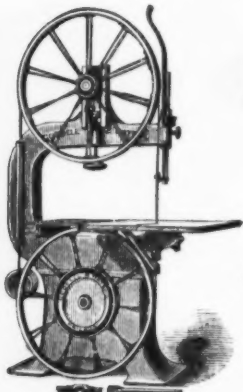


Modern Tenoning Machine.

—WE ARE THE MANUFACTURERS OF THE CELEBRATED—

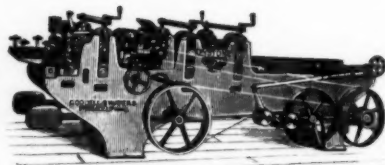
KEYSTONE FLOORING MACHINE,

Of which over **TWO HUNDRED** have been sold during the past Two Years.



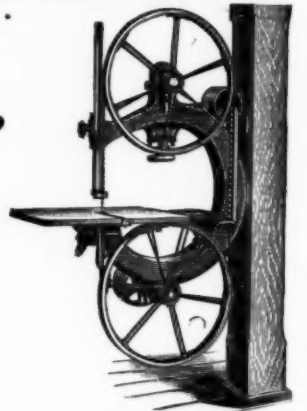
42-inch Band Saw.

*Every Machine is thoroughly
tested before leaving
the Works.*

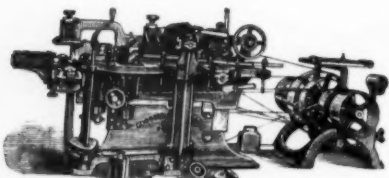


Keystone Flooring Machine,
Surfacing 100 lineal feet per minute.

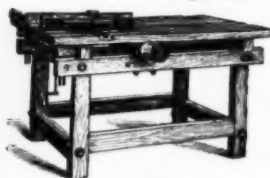
*All our machines are war-
ranted as represented.*



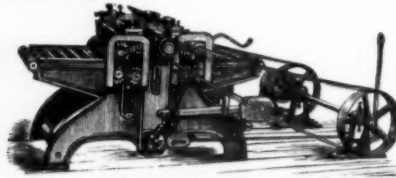
Bracket Band Saw.



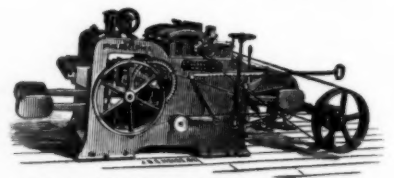
9-inch Four Sided Moulder.



No. 1 Saw Bench.



No. 2 Single Surfacers.



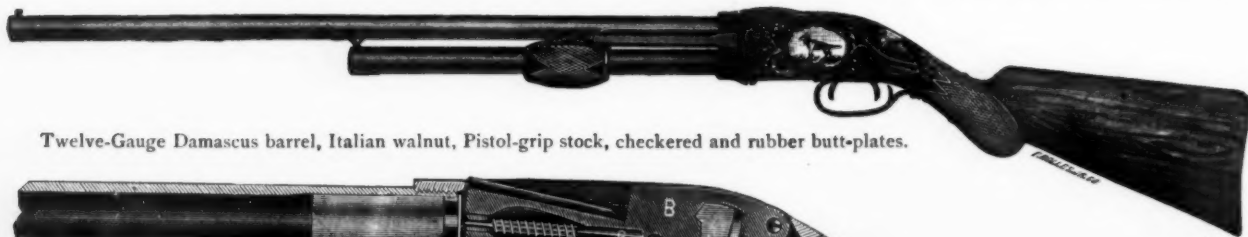
The "Philadelphia" Endless Bed D. S.

—SEND FOR CATALOGUE, AND BE PARTICULAR TO MENTION THIS PAPER.—

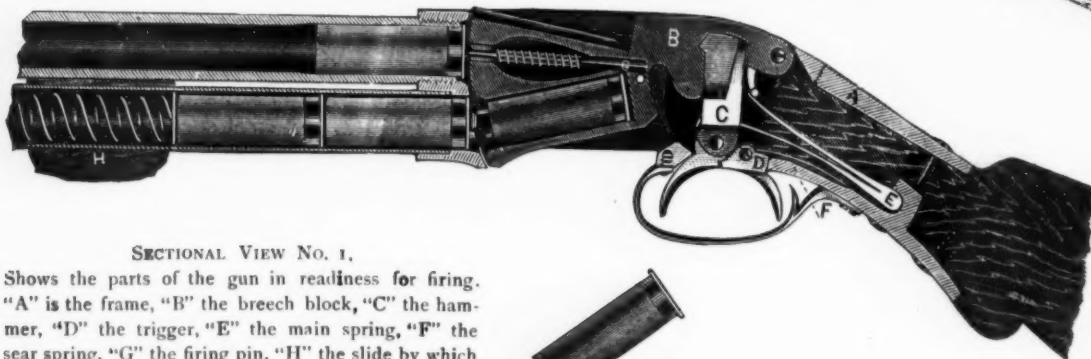
→ **GOODELL & WATERS, Philadelphia, PENNA.** ←

SPENCER Repeating SHOT-GUN.

WILL FIRE SIX TIMES IN THREE SECONDS.

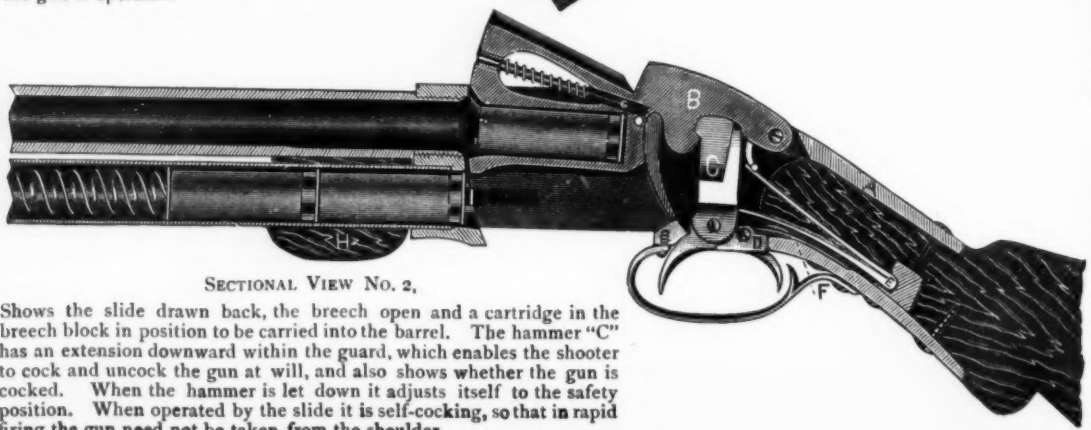


Twelve-Gauge Damascus barrel, Italian walnut, Pistol-grip stock, checkered and rubber butt-plates.



SECTIONAL VIEW NO. 1.

Shows the parts of the gun in readiness for firing. "A" is the frame, "B" the breech block, "C" the hammer, "D" the trigger, "E" the main spring, "F" the sear spring, "G" the firing pin, "H" the slide by which the gun is operated.



SECTIONAL VIEW NO. 2.

Shows the slide drawn back, the breech open and a cartridge in the breech block in position to be carried into the barrel. The hammer "C" has an extension downward within the guard, which enables the shooter to cock and uncock the gun at will, and also shows whether the gun is cocked. When the hammer is let down it adjusts itself to the safety position. When operated by the slide it is self-cocking, so that in rapid firing the gun need not be taken from the shoulder.

THE SPENCER ARMS CO.,
WINDSOR, CONN.

SEND FOR ILLUSTRATED CATALOGUE.

Within five months.

Championship Badge four times

Has won the Connecticut Individual

struction, Convenience of Loading, Etc.

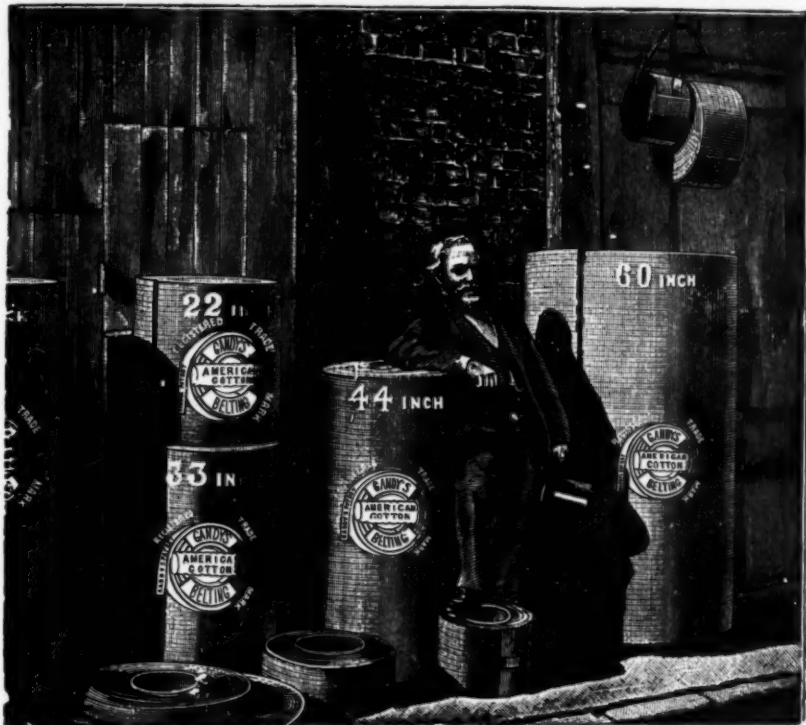
racy and Rapidity of Firing, Simplicity of Con-

Unequaled for Safety, Workmanship, Force, Accu-

The s
Drawn
File has
or comp
hereby
when wa

These
one bu
file; arc
with fitt
adapted
Illustr

69 Du



SILVER MEDAL AWARDED AT THE "NATIONAL EXPOSITION OF RAILWAY APPLIANCES," CHICAGO, JUNE, 1883.

GANDY'S PATENT

AWARDED MEDALS AT

Berlin.....1879.
Hamburg.....1878.
Sydney.....1879.

New Zealand.....1882.
Cincinnati.....1879.
New York.....1880.

MACHINE BELTING

Made Perfectly Straight and any Length without Joints.

For Main Driving it is the Best.

Much Cheaper than Leather.

MANUFACTURED BY

THE GANDY BELTING CO.
BALTIMORE, MD.

UNION STONE COMP'Y

Nos. 38 and 40 Hawley Street, Boston, Mass.

PATENTEES AND MANUFACTURERS OF THE



BUFFING LATHE.

UNION EMORY WHEEL.

Emory Wheel Machinery and Tools a Specialty.

Automatic Knife-Grinding Machines, Wood-Polishing Wheels, Corundum, Grinders' and Polishers' Supplies.
Catalogue on Application.



THE DIAMOND TOOL, FOR DRESSING OR TRUING
EMERY WHEELS.

STANDARD COAL CO.

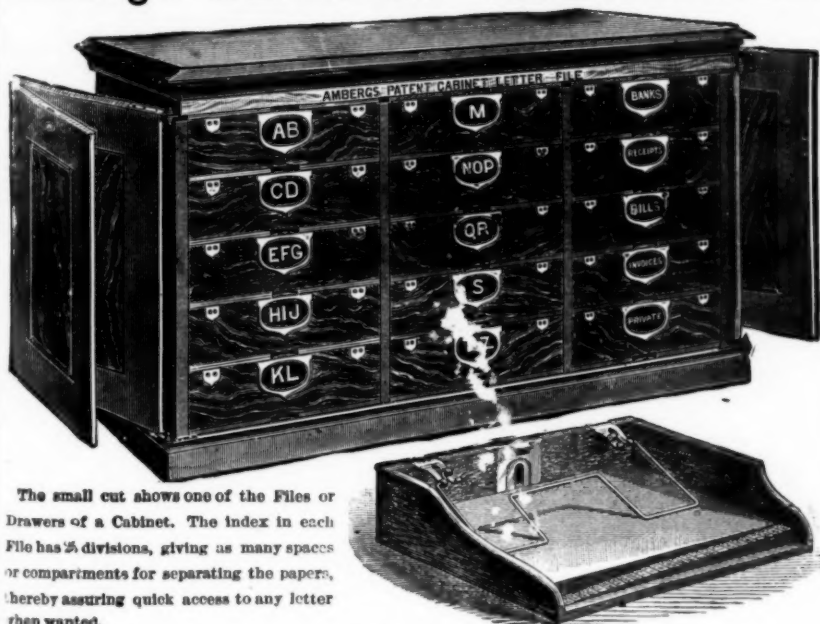
MINERS AND SHIPPERS OF

JELLICO MOUNTAIN COAL 56 Clinch Street, - - - Knoxville, Tenn.

SCREENED LUMP COAL for steam and machinery purposes a specialty.
For prices and freights, address

E. E. McCROSKEY, Prest.

Amberg's "PEERLESS" Cabinet Letter File



The small cut shows one of the Files or Drawers of a Cabinet. The index in each File has 26 divisions, giving as many spaces or compartments for separating the papers, thereby assuring quick access to any letter when wanted.

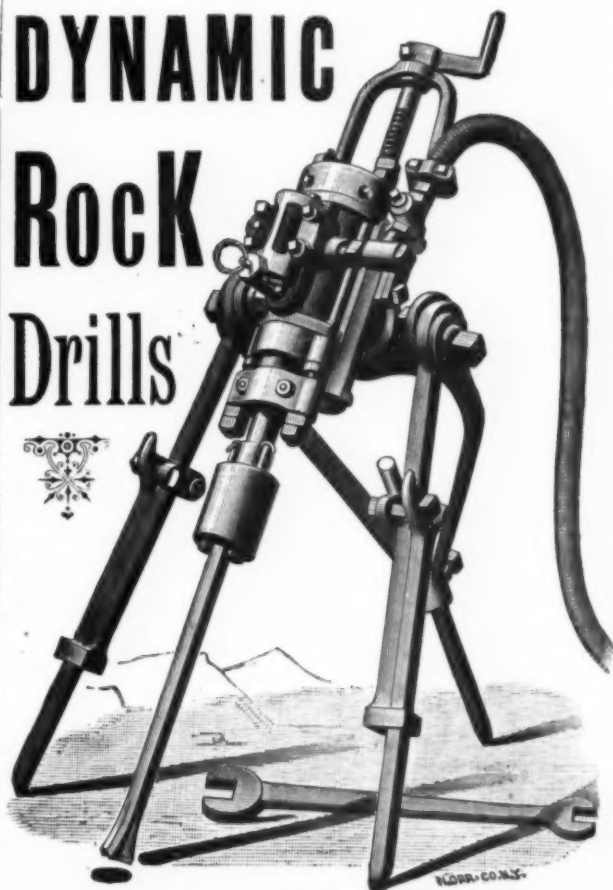
OVER 6,000 IN USE.

These Cabinet Letter Files are made in many sizes, ranging from the smallest of six Files to those one hundred or more. As lately improved, they combine all the desirable points wanted in a complete Letter File; are elegantly and substantially made, the wood-work being of the best seasoned Black Walnut, veneered with fittings of brass and steel, nickel-plated. They can be arranged for any class of correspondence, and adapted to any requirement.

Illustrated Catalogue on application to

CAMERON, AMBERG, & CO., Sole Manufacturers,
69 Duane Street, New York. 71 & 73 Lake Street, Chicago. 27 Little Britain, London.

DYNAMIC Rock Drills



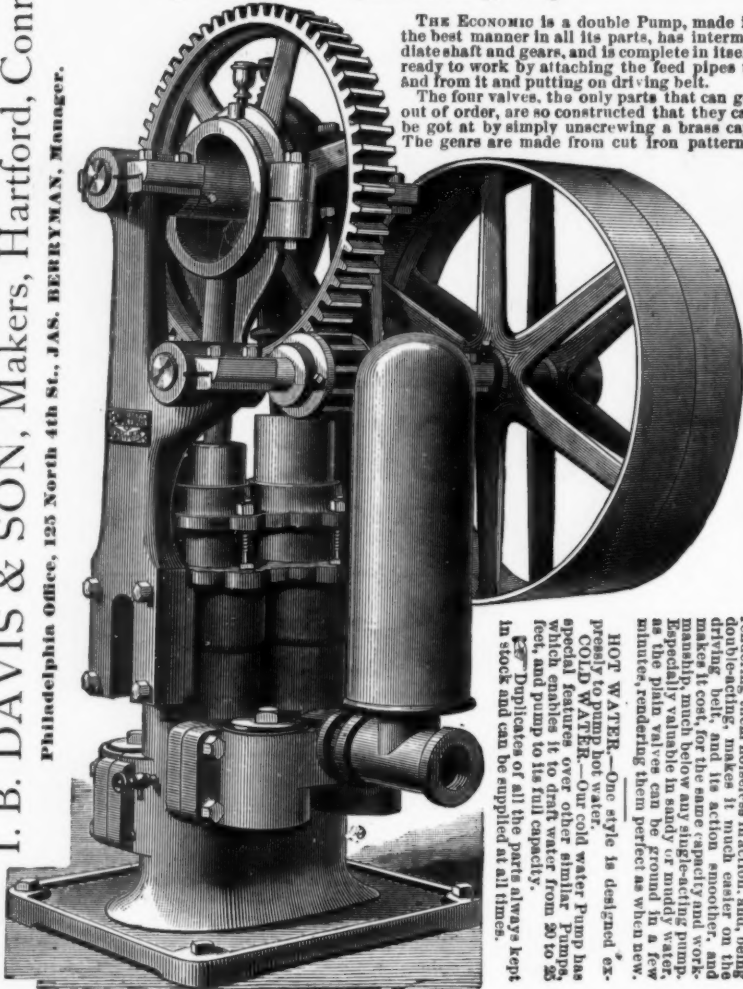
CHAS. W. MELCHER, 620 Chestnut St.
ST. LOUIS, MO.

The Dynamic Rock Drill is operated by steam or compressed air, and adapted to every kind of drilling required in the operation of mining and quarrying. One of the merits of these Drills is, that they are self-condensing, steam pumps, steam heaters, and self-packing valves. SOLD BY

THE ECONOMIC PATENT Boiler Feed Pump

[Patented May, 1879, and February, 1883.]

I. B. DAVIS & SON, Makers, Hartford, Conn.
Philadelphia Office, 125 North 4th St., JAS. BERRYMAN, Manager.



THE ECONOMIC is a double Pump, made in the best manner in all its parts, has intermediate shaft and gears, and is complete in itself, ready to work by attaching the feed pipes to and from it and putting on driving belt.

The four valves, the only parts that can get out of order, are so constructed that they can be got at by simply unscrewing a brass cap. The gears are made from cut iron patterns.

rendering them noiseless in action and, being double-acting, makes it much easier on the driving belt, and its action smoother and makes it cost, for the same capacity and workmanship, much below any single-acting pump. Especially valuable in sandy or muddy water, as the plain valves can be ground in a few minutes, rendering them perfect as when new.

HOT WATER.—One style is designed expressly to pump hot water.

COLD WATER.—Our cold water Pump has special valves over other similar Pumps, which enables it to draft water from 30 to 35 feet, and pump to its full capacity.

Duplicates of all the parts always kept in stock and can be supplied at all times.

ROBT. WETHERILL & CO. CHESTER, PA.

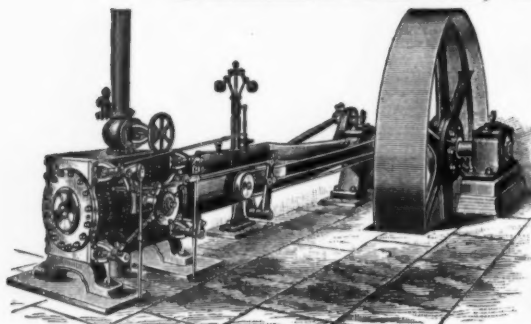
ESTABLISHED 1872.

Corliss Engine

—BUILDERS—

Condensing, Non-Condensing, Compound, Great Economy, Durability, Close Regulation.

BOILERS, Shafting and Gearing.



CORLISS PUMPING ENGINES

—CITY WATER WORKS—

Chapman Valve Mfg. Co.

—MANUFACTURERS OF—

STEAM, GAS and WATER

VALVES and GATES

FIRE HYDRANTS.

WITH OR WITHOUT INDEPENDENT VALVES.

General Office and Works, INDIAN ORCHARD, MASS.

Treasurer's Office,

Mason Building, 72 Kilby and 112 Milk Sts., Boston.

—ALL WORK GUARANTEED.—

Send for Descriptive Circulars and Price-List. Correspondence Solicited.



THOMAS K. CAREY & CO.

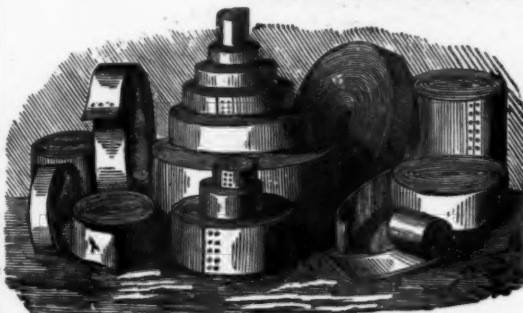
25 S. Charles Street, BALTIMORE, MD.

Manuf- turers PURE OAK LEATHER BELTING,

Dealers in RUBBER BELTING, PACKING, ROPE, &c.,
COTTON, WOOLEN AND SAW MILL SUPPLIES, &c.

—AGENTS—

Boston Belting Co's
Rubber Belting.
Hoyt's Leather Belt.
Mt. Vernon Belting.
Jos. Noones' Sons
Roller Slasher and
Clearer Cloth.
T. K. Earle's Card
Clothing, &c.



AKRON, OHIO, March 7th, 1884.

BETTS MACHINE CO., Wilmington, Del.:

The 110 inch Turning and Boring Mill purchased from you we have had running constantly since July, 1881, a portion of the time night and day, thus thoroughly testing its quality, and we are able to state that it has given us entire satisfaction. During the time we have been using it, it has not required any repairs. The weight and power are ample, and the workmanship is all that could be desired. The gearing is noiseless. The ease with which the machine can be widened to increase the swing makes it very desirable for a shop having a wide range of work. You gave us more than you promised. We bought the mill for 110 inch swing, to widen to 16 feet. It swings 112 inches, and we have turned a fly-wheel pulley 18 feet diameter by 47 inches face, weight 14 tons, and do not see why we might not turn 20 feet. We have turned a hoisting drum 12 feet diameter, 6 feet face, weight 8 tons. The tool-holders, cross-heads, quick return, and entirely independent feed motion on each side of the machine, are very fine points, and not surpassed by any machine we know of. You are at liberty to refer any parties to us for further information regarding the machine, and if they call upon us we will take pleasure to give them every facility to examine the machine while at work.

Respectfully yours,

WEBSTER, CAMP & LANE MACHINE CO.

PHOSPHOR-BRONZE



Trade Marks.

The celebrated alloys in Wire, Rods, Sheets, Bolts, Wire Ropes, Wire Cloth, Castings, Ingots, etc.

Pamphlets and particulars on application to

THE PHOSPHOR-BRONZE SMELTING CO., Limited.

No. 512 ARCH STREET, PHILADELPHIA, PA.

Owners of the U. S. Phosphor-Bronze Patents.

Sole Manufacturers of Phosphor-Bronze in the United States.

ESTABLISHED 1774. PATAPSCO FLOURING MILLS.

BUHRS 1774.

ROLLS 1882.

This Company owns and operates three Mills, as follows:

Patapsco Mill A, Ellicott City, Md.

Patapsco Mill B, Baltimore, Md.

Patapsco Mill C, Orange Grove, Md.

—Having a daily capacity of 1,500 barrels.—

The value of Flour depends on the proportionate quantity of Gluten, Starch, Sugar and Phosphate of Lime Maryland and Virginia Wheat, from which our Patent Roller Flours are manufactured, is unequalled for its purity and superior quality of alibie properties.

ASK YOUR GROCER FOR

Patapsco Superlative Patent. Patapsco Choice Patent. Patapsco Family. Cape Henry Family.

Patapsco Extra. North Point Family. Chesapeake Extra. Bedford Family. Orange Grove Extra

C. A. GAMBRILL MFG CO.

Office, 32 Commerce St., Baltimore, Md.

Buffalo Shaving and Ventilating

EXHAUST * FANS.

SATISFACTION GUARANTEED
In * Every * Instance.

SEND FOR CATALOGUE AND

—PRICE-LIST.—

Buffalo Forge Co.



* 490 * BROADWAY, * BUFFALO, * N. * Y. *